1161SBG000AA

EP8015/EP6001

GENERAL, MECHANICAL/ ELECTRICAL

MINOLTA

SAFETY INFORMATION

ALL Areas

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the manufacturer.
Dispose of used batteries according
to the manufacturer's instructions.

Denmark

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

Norway

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.
Benytt samme batteritype eller en tilsvarende
type anbefalt av apparatfabrikanten.
Brukte batterier kasseres i henhold til fabrikantens
instruksjoner.

Sweden

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

Finland

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä Käytetty paristo valmistajan ohjeiden
mukaisesti.

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GENERAL

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1 SPECIFICATIONS

TYPE : Console (with Stationary Platen)

PHOTOCONDUCTOR : Organic Photoconductor

COPYING SYSTEM : Electrostatic Dry Powdered Image Transfer to Plain Paper

PAPER FEEDING SYSTEM : 4-Way system
- Multi Bypass Table: 50 sheets of paper
- 1st and 2nd Drawer: Each holding up to 500 sheets of paper
- 3rd Drawer: Holding up to 2,500 sheets of paper

EXPOSURE SYSTEM : Mirror Scanning, Slit Exposure

DEVELOPING SYSTEM : New Micro-Toning System

CHARGING SYSTEM : Comb Electrode DC Negative Corona with Scorotron System

IMAGE TRANSFER SYSTEM : Visible Image Transfer by means of a Single-Wire DC Negative Corona with Corotron System

PAPER SEPARATING SYSTEM : Single-Wire AC Corona with Corotron System, plus Paper Separator Finger

FUSING SYSTEM : Heat Roller

PAPER DISCHARGING SYSTEM : Charge Neutralizing Brush

MAXIMUM ORIGINAL SIZE : Metric-A3L; Inch-11” × 17”L (L: Lengthwise)

COPY MEDIUM

Paper Source		1st to 2nd Drawer	3rd Drawer	Multi Bypass Table
Medium	Plain paper (60 to 90 g/m^2)	○	○	○
	Translucent paper	–	–	○
	Transparencies	–	–	○
	Thick paper (91 to 157 g/m^2)	–	–	○
	Recycled paper	○	○	○
Dimensions	Maximum (Width × Length)	297 × 432 mm	A4C	297 × 432 mm
	Minimum (Width × Length)	140 × 182 mm	8-1/2” × 11”C	100 × 140 mm

○: Permissible –: Not permissible C: Crosswise

MULTIPLE COPIES : 1 to 999

WARMING-UP TIME : 5 min. or less with room temperature of 20°C and rated power voltage

FIRST COPY TIME : EP8015: A4C or 8-1/2” × 11”C: 2.5 sec. or less
EP6001: A4C or 8-1/2” × 11”C: 3.5 sec. or less
(in Full size Mode using 1st Drawer)

CONTINUOUS COPY SPEED (copies/min.): Fed from 1st Drawer
EP8015:

Area	**Zoom Ratio** **Size**	×1.000
Metric	A3L	42
	A4L	63
	A4C	81
	B4L	53

Area	**Zoom Ratio** **Size**	×1.000
Inch	11” × 17” (L)	40
	8-1/2” × 11” (L)	63
	8-1/2” × 11” (C)	80

L: Lengthwise; C: Crosswise

EP6001:

Area	**Zoom Ratio** **Size**	×1.000
Metric	A3L	31
	A4L	47
	A4C	60
	B4L	40

Area	**Zoom Ratio** **Size**	×1.000
Inch	11” × 17” (L)	31
	8-1/2” × 11” (L)	50
	8-1/2” × 11” (C)	60

L: Lengthwise; C: Crosswise

ZOOM RATIOS

	Area **Mode**	**Metric**	**Inch**
Fixed	Full Size	×1.000	×1.000
	Reduction	×0.816 ×0.707 ×0.500	×0.785 ×0.733 ×0.647 ×0.500
	Enlargement	×1.154 ×1.414 ×2.000	×1.214 ×1.294 ×1.545 ×2.000
Variable	50% to 200% (in 0.1% increments)		

LENS : Through Lens (F = 5.6, f = 215 mm)

EXPOSURE LAMP : Halogen Frost Tube Lamp

FUSING TEMPERATURE : EP8015: 205°C
EP6001: 190°C

POWER/CURRENT CONSUMPTION (Copier Only)
EP8015:

Voltage	Exposure Lamp (Rating)	Fusing Heater Lamp (Rating)	Max. Power Consumption
115 V 120 V	90 V 275 W	H1: 1070 W H2: 520 W H3: 215 W	1630 W
127 V			
220 V 240 V	160 V 275 W	H1: 1040 W H2: 490 W H3: 200 W	1712 W

EP6001:

Voltage	Exposure Lamp (Rating)	Fusing Heater Lamp (Rating)	Max. Power Consumption
115 V 120 V	90 V 250 W	H1: 900 W H2: 520 W H3: 215 W	1370 W
127 V			
220 V 240 V	160 V 250 W	H1: 1040 W H2: 290 W H3: 200 W	1600 W

POWER REQUIREMENTS : 115 V, 120 V, 127 V, 220-240 V; 50/60 Hz

ENVIRONMENTAL CONDITIONS

Temperature	10 to 30°C with a fluctuation of 10°C or less per hour
Humidity	15 to 85% RH with a fluctuation of 10% RH or less per hour
Ambient Illumination	3,000 lux or less
Levelness	1° (1.75 mm/100 mm)

DIMENSIONS (Copier Only) :
Width .... 746 mm (29-1/4")
Depth .... 720 mm (28-1/4")
Height ... 969 mm (38-1/4")

WEIGHT : 180 kg (396-3/4lbs) (Copier Only)
*excluding the Copy Tray, starter, toner, and paper

2 PRECAUTIONS FOR INSTALLATION

■ Installation Site

To ensure safety and utmost performance of the copier, the copier should NOT be used in a place:

- Where it will be subjected to extremely high or low temperature or humidity.
- Which is exposed to direct sunlight.
- Which is in the direct air stream of an air conditioner, heater or ventilator.
- Which puts the operator in the direct stream of exhaust from the copier.
- Which has poor ventilation.
- Where ammonia gas might be generated.
- Which does not have a stable, level floor.
- Where it will be subjected to sudden fluctuations in either temperature or humidity. If a cold room is quickly heated, condensation forms inside the copier, resulting in blank spots in the copy.
- Which is near any kind of heating device.
- Where it may be splashed with water.
- Which is dirty or where it will receive undue vibration.
- Which is near volatile flammables or curtains.

■ Power Source

Use an outlet with a capacity of 115/120/127V, 1630 W or more, or 220-240V, 1712W or more.

- If any other electrical equipment is sourced from the same power outlet, make sure that the capacity of the outlet is not exceeded.
- Use a power source with little voltage fluctuation.
- Never connect by means of a multiple socket any other appliances or machines to the outlet being used for the copier.
- Make the following checks at frequent intervals:
  - Is the power plug abnormally hot?
  - Are there any cracks or scrapes in the cord?
  - Has the power plug been inserted fully into the outlet?
  - Does something, including the copier itself, ride on the power cord?
- Ensure that the copier does not ride on the power cord or communications cable of other electrical equipment, and that it does not become wedged into or underneath the mechanism.

■ Grounding

To prevent receiving electrical shocks in the case of electrical leakage, always ground the copier.

- Connect the grounding wire to:
  - The ground terminal of the outlet.
  - A grounding contact which complies with the local electrical standards.
- Never connect the grounding wire to a gas pipe, the grounding wire for a telephone, or a water pipe.

3 PRECAUTIONS FOR USE

To ensure that the copier is used in an optimum condition, observe the following precautions.

- Never place a heavy object on the copier or subject the copier to shocks.
- Insert the power plug all the way into the outlet.
- Do not attempt to remove any panel or cover which is secured while the copier is making copies.
- Do not turn OFF the Power Switch while the copier is making copies.
- Provide good ventilation when making a large number of copies continuously.
- Never use flammable sprays near the copier.
- If the copier becomes inordinately hot or produces abnormal noise, turn it OFF and unplug it.
- Do not turn ON the Power Switch at the same time when you plug the power cord into the outlet.
- When unplugging the power cord, do not pull on the cord; hold the plug and pull it out.
- Do not bring any magnetized object near the copier.
- Do not place a vase or vessel containing water on the copier.
- Be sure to turn OFF the Power Switch at the end of the workday or upon power failure.
- Use care not to drop paper clips, staples, or other small pieces of metal into the copier.

■ Operating Environment

The operating environmental requirements of the copier are as follows.

- Temperature: 10°C to 30°C with a fluctuation of 10°C per hour
- Humidity: 15% to 85% RH with a fluctuation of 10% RH per hour

■ Power Requirements

The power source voltage requirements are as follows.

• Voltage Fluctuation:	AC115/120/127/220-240V ± 10% (Copying performance assured) +6%, –10% (AC127V Areas only) –15% (Paper feeding performance assured)
• Frequency Fluctuation:	50/60 Hz ± 0.3%

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4 HANDLING OF THE CONSUMABLES

Before using any consumables, always read the label on its container carefully.

- Use the right toner. The applicable copier model name is indicated on the Toner Bottle.
- Paper can to be easily damaged by dampness. To prevent absorption of moisture, store paper, which has been removed from its wrapper but not loaded into the Drawer, in a sealed plastic bag in a cool, dark place.
- Keep consumables out of the reach of children.
- Do not touch the PC Drum with bare hands.
- Store the paper, toner, and other consumables in a place free from direct sunlight and away from any heating apparatus.
- The same sized paper is of two kinds, short grain and long grain. Short grain paper should only be fed through the copier crosswise, long grain paper should only be fed lengthwise.
- If your hands become soiled with toner, wash them with soap and water immediately.
- Do not throw away any used consumables (PC Drum, starter, toner, etc.). They are to be collected.

NOTE

Do not burn, bury in the ground, or throw into the water any consumables (PC Drum, starter, toner, etc.).

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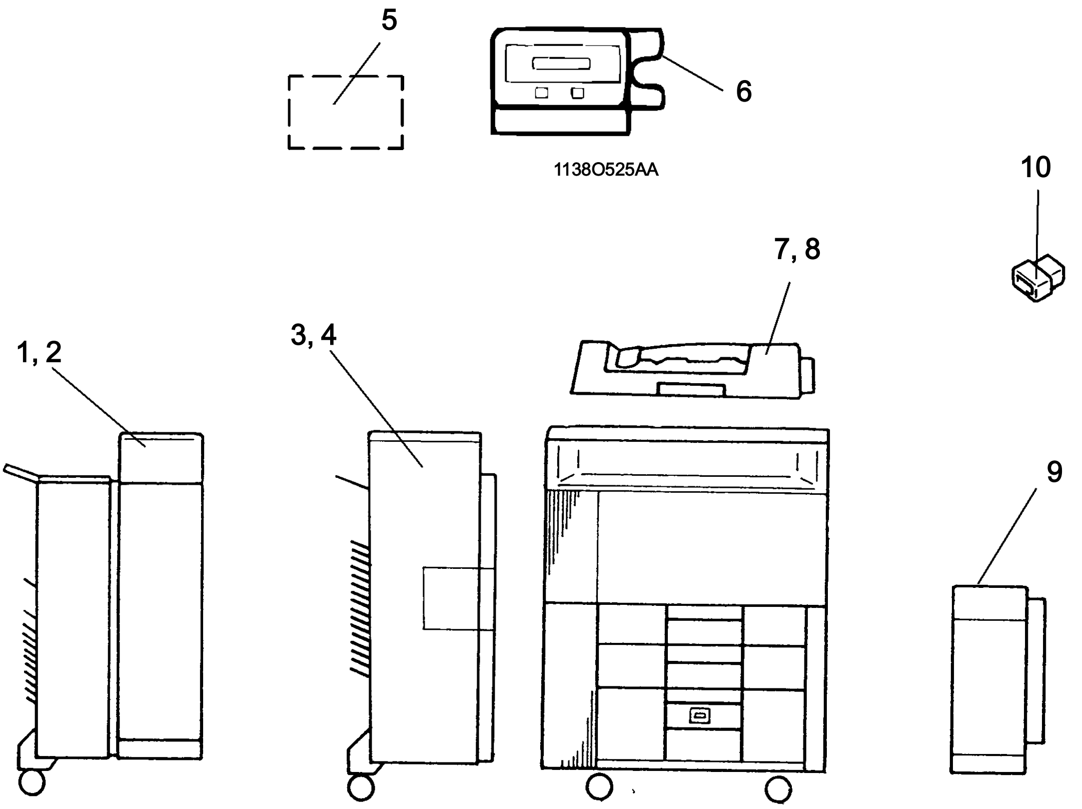
5 SYSTEM OPTIONS



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1. 20-Bin Multi-Staple Sorter ST-213*1
2. Staple Sorter Stacker ST-1000*2
3. 20-Bin Sorter S-209*1
4. 20-Bin Staple Sorter ST-212*1
5. Data Terminal
6. Data Controller D-102
7. Duplexing Document Feeder AFR-13*1
8. Recycling Document Feeder AFR-1000
9. Large Capacity Cassette C-302*3
10. Plug-In Counter

*1 EP6001 Only

*2 EP8015: ST-1100

*3 EP8015: C-303

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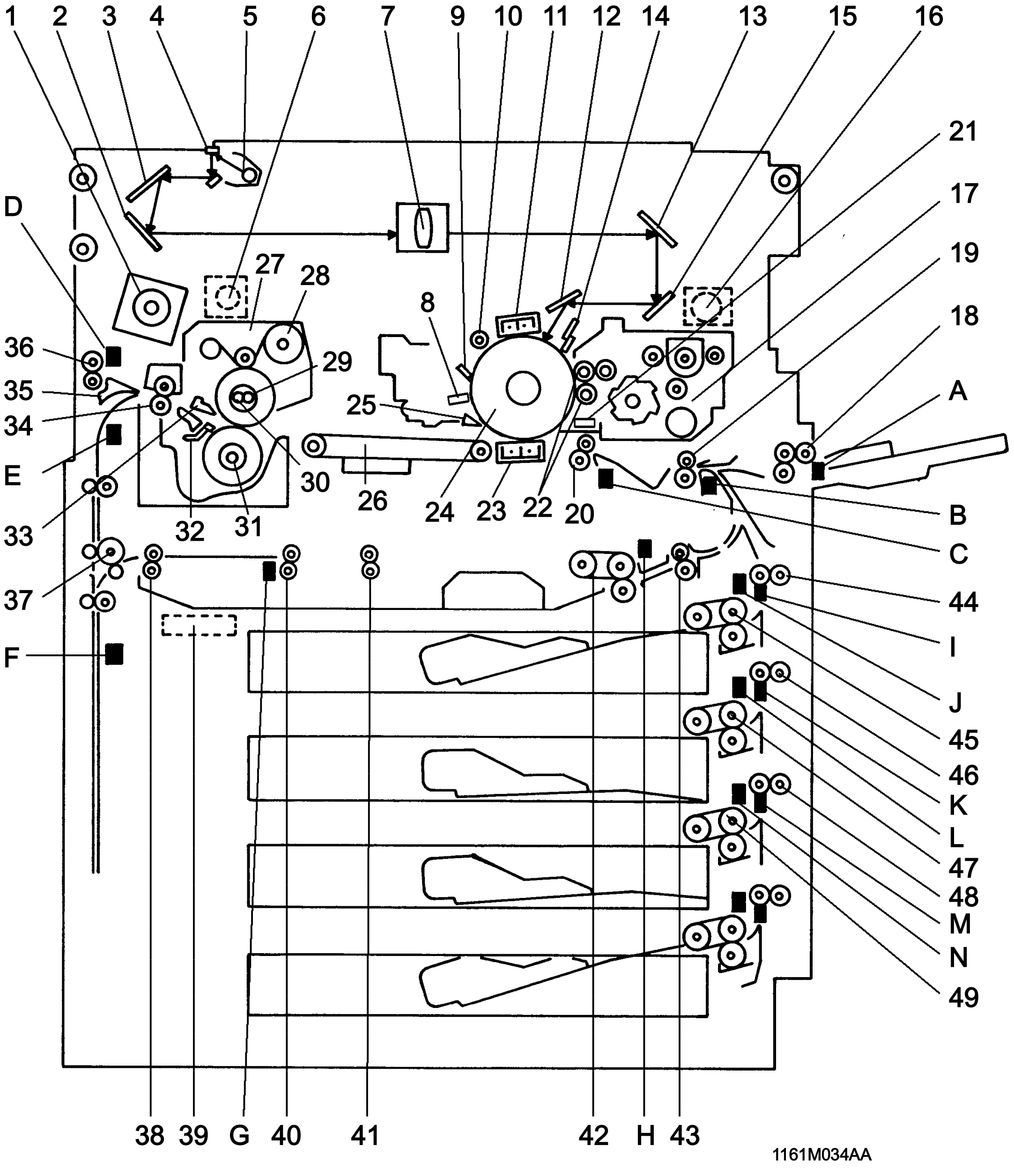
MECHANICAL/ ELECTRICAL

1161SBM0100A

1 CROSS-SECTIONAL VIEW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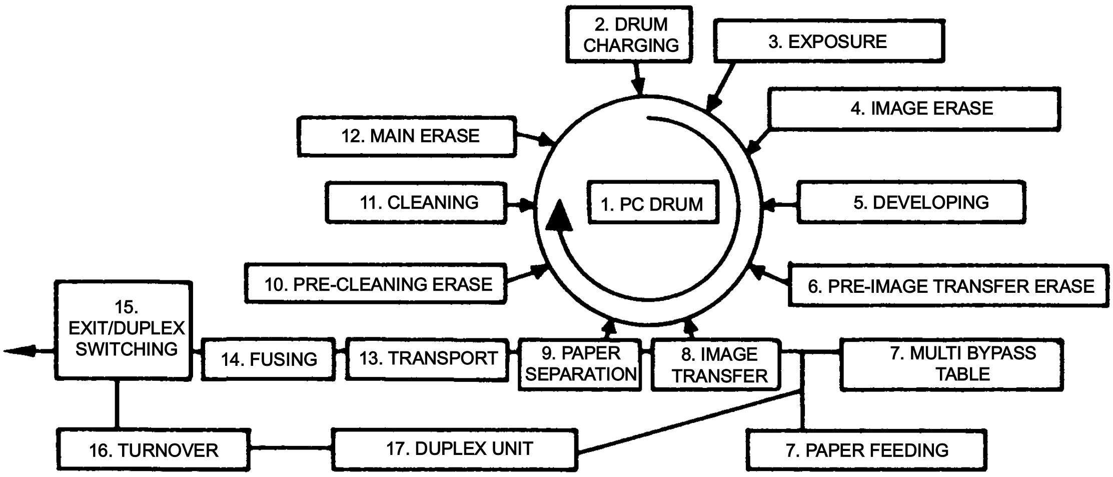
1. Optical Section Cooling Fan Motor M17
2. 3rd Mirror
3. 2nd Mirror
4. 1st Mirror
5. Exposure Lamp LA1
6. Fusing Unit Ventilation Fan Motor M8
7. Lens
8. Pre-Cleaning Erase Lamp LD3
9. Cleaning Blade
10. Main Erase Lamp LA2
11. PC Drum Charge Corona
12. 6th Mirror
13. 4th Mirror
14. Image Erase Lamp LD1
15. 5th Mirror
16. Toner Suction Fan Motor M20
17. Developing Unit
18. Manual Bypass Take-up Roll
19. Transport Roller
20. Synchronizing Roller
21. Pre-Image Transfer Erase Lamp LD2
22. 1st and 2nd Sleeve/Magnet Rollers
23. Image Transfer/Paper Separator Coronas
24. PC Drum
25. PC Drum Paper Separator Finger
26. Suction Unit
27. Fusing Unit
28. Web Roller
29. Upper Fusing Roller Main Heater Lamp H1
30. Upper Fusing Roller Sub Heater Lamp H2
31. Lower Fusing Roller Heater Lamp H3
32. Lower Fusing Paper Separator Finger
33. Upper Fusing Paper Separator Finger
34. Fusing Unit Transport Roller
35. Exit/Duplexing Switching Plate
36. Paper Exit Roller
37. Turnover/Paddles Roller
38. Turnover Drive Roller
39. Ventilation Fan Motor M19
40. Gate 2 Transport Roller
41. Gate 1 Transport Roller
42. Duplex Paper Take-Up Roll
43. Duplex Vertical Transport Roller
44. Vertical Transport Roller 1
45. 1st Drawer Paper Take-Up Section
46. Vertical Transport Roller 2
47. 2nd Drawer Paper Take-Up Section
48. Vertical Transport Roller 3
49. 3rd Drawer Paper Take-Up Section

- Misfeed Sensors -

A. Manual Feed Paper Empty Sensor PC28
B. Transport Roller Sensor PC26
C. Paper Leading Edge Sensor PC27
D. Paper Exit Sensor PC33
E. Transport Feed Sensor PC34
F. Duplex Unit Turnover Path Sensor PC35
G. Duplex Unit Paper Entry Sensor PC36
H. Duplex Unit Paper Take-Up Sensor PC37
I. Vertical Transport Sensor 1 PC10
J. 1st Drawer Paper Take-Up Sensor PC6
K. Vertical Transport Sensor 2 PC11
L. 2nd Drawer Paper Take-Up Sensor PC7
M. Vertical Transport Sensor 3 PC12
N. 3rd Drawer Paper Take-Up Sensor PC8

1161SBM0200A

2 COPY PROCESS


2. DRUM CHARGING
3. EXPOSURE
4. IMAGE ERASE
12. MAIN ERASE
11. CLEANING
1. PC DRUM
5. DEVELOPING
10. PRE-CLEANING ERASE
6. PRE-IMAGE TRANSFER ERASE
15. EXIT/DUPLEX SWITCHING
14. FUSING
13. TRANSPORT
9. PAPER SEPARATION
8. IMAGE TRANSFER
7. MULTI BYPASS TABLE
16. TURNOVER
17. DUPLEX UNIT
7. PAPER FEEDING

1075M102AB

1. PC Drum The PC Drum is an aluminum cylinder coated with a photosensitive semiconductor. It is used as the medium on which a visible developed image of the original is formed. (For more details, see “8. PC DRUM”.)
2. Drum Charging The PC Drum Charge Corona Unit is equipped with a Comb Electrode and a Scorotron Grid to deposit a uniform negative charge across the entire surface of the PC Drum. (For more details, see “9. DRUM CHARGING”.)
3. Exposure Light from the Exposure Lamp reflected off the original is guided to the surface of the PC Drum and reduces the level of the negative charges, thereby forming an electrostatic latent image. (For more details, see “10. OPTICAL SECTION”.)
4. Image Erase Any areas of charge which are not to be developed are neutralized by lighting up LEDs. (For more details, see “12. IMAGE ERASE LAMP”.)
5. Developing Toner positively charged in the Developer Mixing Chamber is attracted onto the electrostatic latent image changing it to a visible, developed image. A DC negative bias voltage is applied to the Sleeve/Magnet Roller to prevent toner from being attracted onto those areas of the PC Drum which correspond to the background areas of the original. (For more details, see “13. DEVELOPING UNIT”.)
6. Pre-Image Transfer Erase Light from the Pre-Image Transfer Erase Lamp striking the surface of the PC Drum improves image transfer and paper separation efficiency. (For more details, see “14. PRE-IMAGE TRANSFER ERASE LAMP”.)

7. Paper Feeding

Paper is fed either automatically from the 1st or 2nd Drawer, or manually via the Multi Bypass Table or Manual Bypass Table. Paper separation is accomplished by the torque limiter fitted to the Paper Separator Roll.

(For more details, see “15. PAPER TAKE-UP/FEED SECTION”.)

8. Image Transfer

The single-wire Image Transfer Corona Unit applies a DC negative corona emission to the underside of the paper, thereby attracting toner onto the surface of the paper.

(For more details, see “17. IMAGE TRANSFER AND PAPER SEPARATION”.)

9. Paper Separation

The single-wire Paper Separator Corona Unit applies an AC corona emission to the underside of the paper to neutralize the paper. In addition, mechanical paper separation is provided by the two PC Drum Paper Separator Fingers fitted to the Imaging Unit.

(For more details, see “17. IMAGE TRANSFER/PAPER SEPARATOR CORONAS”.)

10. Pre-Cleaning Erase

Light from the Pre-Cleaning Erase Lamp striking the surface of the PC Drum reduces surface potential, thereby preventing toner accumulated on the back of the Cleaning Blade from sticking to the surface of the PC Drum.

(For more details, see “18. CLEANING UNIT”.)

11. Cleaning

Residual toner on the surface of the PC Drum is scraped off by the Cleaning Blade.

(For more details, see “18. CLEANING UNIT”.)

12. Main Erase

Light from the Main Erase Lamp neutralizes any surface potential remaining on the surface of the PC Drum after cleaning.

(For more details, see “19. MAIN ERASE LAMP”.)

13. Transport

The paper is fed to the Fusing Unit by the Suction Belts.

(For more details, see “20. TRANSPORT SECTION”.)

14. Fusing

The developed image is permanently fused to the paper by a combination of heat and pressure applied by the Upper and Lower Fusing Rollers.

(For more details, see “21. FUSING UNIT”.)

15. Exit/Duplex Switching

After the fusing process, the paper is either fed out onto the Exit Tray or down into the turnover mechanism of the Duplex Unit.

(For more details, see “22. EXIT/DUPLEX SWITCHING UNIT”.)

16. Turnover

The 1-sided copy is turned over and fed into the Duplex Unit.

(For more details, see “23. DUPLEX UNIT TURNOVER MECHANISM”.)

17. Duplex Unit

The 1-sided copies are stored and then taken up one by one for the second copy cycle.

(For more details, see “24. DUPLEX UNIT”.)

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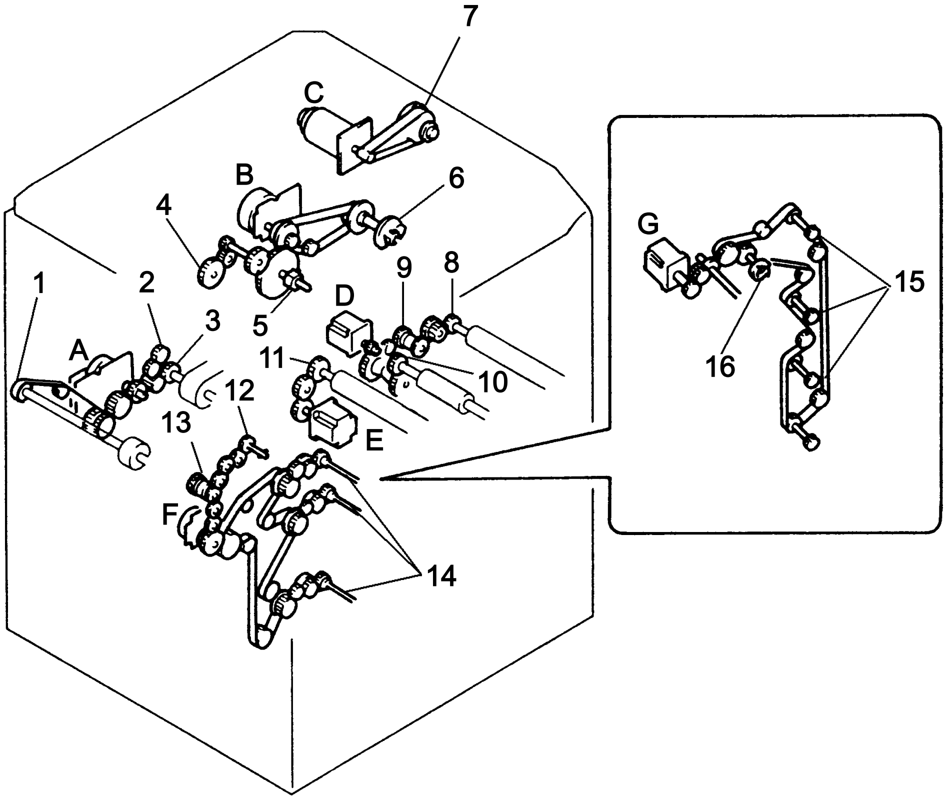
3 DRIVE SYSTEM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1075M100AA

A = Fusing Motor M6: Drives the Fusing Unit, Paper Exit Roller, and Suction Belts.

1. Paper Exit Roller drive pulley
2. Fusing Unit drive gear
3. Suction Belt drive gear

B = PC Drum Drive Motor M5: Drives the PC Drum, Developing Unit, and Toner Conveying Screw.

4. Toner Conveying Screw drive gear
5. PC Drum drive coupling pawl A
6. Developing Unit drive coupling gear 2

C = Scanner Motor M11: Drives the Scanner and 2nd/3rd Mirrors Carriage.

7. Scanner drive pulley

D = Transport Motor M3: Drives the Transport Roller and Multi Bypass Take-Up mechanism.

8. Multi Bypass Take-Up drive gear
9. Multi Feed Paper Take-Up Clutch CL5
10. Transport Roller drive gear

E = Synchronizing Motor M4: Drives the Synchronizing Roller

11. Synchronizing Roller drive gear

F = Paper Take-Up Motor M1: Drivers the Paper Take-Up mechanism and the Duplex Take-Up mechanism.

12. Duplex Take-Up mechanism drive gear
13. Duplex Unit Paper Take-Up Clutch CL6
14. Paper Take-Up Clutch for drawers CL1 to 3

G = Vertical Transport Motor M2 = Drives the Vertical Transport Rollers and Duplex Vertical Transport Rollers.

15. Vertical Transport Roller drive gear
16. Duplex Vertical Transport Roller drive gear

1161SBM0400A

4 SEQUENTIAL EXPLANATION

A The power cord is plugged into the outlet.

The timer values given in ( ) are for EP8015.

- ON → DC Power Supply PU1 outputs DC24V for dehumidifiers.
  - ON → Drum Dry Heater H4, Developing Unit Dehumidifying Heater H5, and Lower Paper Dehumidifying Heater H7
  - ON → Developing Unit Dehumidifying Heater H5

*Only when Drum Dehumidifying Switch S7 and Paper Dehumidifying Switch S8 are ON.

B Power Switch S1 is turned ON.

- OFF → H4, H5
- ON → PU1 outputs DC24V and DC5V.
  - ON → Power Supply Board PWB-C outputs DC24V. (DC24V line: ON)
  - ON → Master Board PWB-A outputs DC4.7V and DC12V.
- ON → Control panel display
- ON → Suction Fan Motor M18 turns at half speed.
- Approx. 500 msec. ON → Upper Fusing Roller Main Heater Lamp H1
  - → Approx. 1500 msec. ON → Upper Fusing Roller Sub Heater Lamp H2
    - → Approx. 500 msec. ON → Lower Fusing Roller Heater Lamp H3: EP8015 only
  - → The Lens is detected at the home position.
    - → The Mirror is detected at the home position.
      - → The Scanner makes its initial motion.
        - → The Lens is detected at the full size position.
          - → The Mirror is detected at the full size position.
      - ON → PC Drum Charge Comb Cleaning Motor M21 and Image Transfer/Paper Separator Charge Wire Cleaning Motor M22
        - → Approx. 24 sec. OFF → M21, M22: The cleaner makes one round trip to clean the electrode/wire and stops.
  - ↓ The surface temperature of the Upper Fusing Roller reaches 170°C.
    - ON → Fusing Motor M6 starts predrive.
    - After 85 sec. (120 sec.) or 40 sec. or 5 sec.
      - OFF → M6

For details, see OPTICAL SECTION.

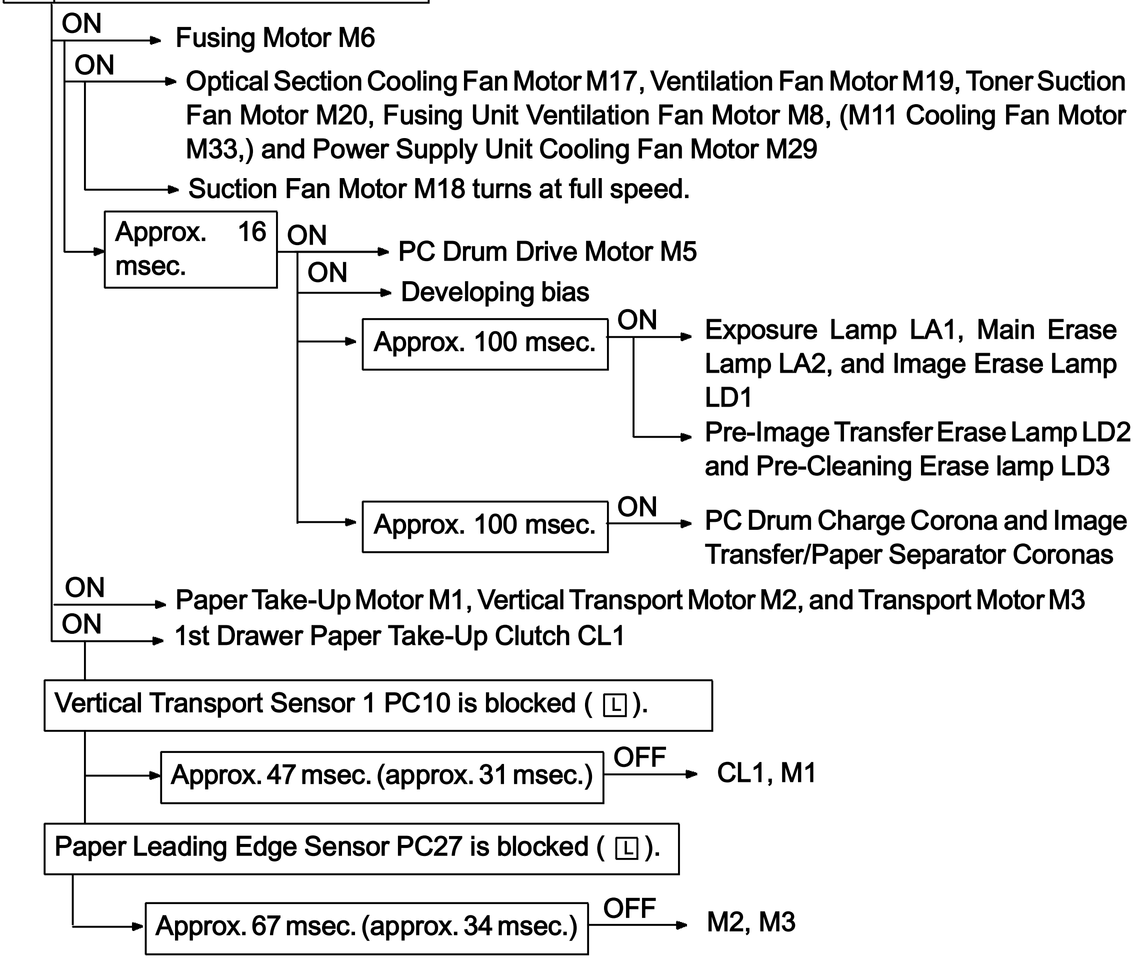
*The predrive starting temperature and predrive time depend on the surface temperature of the Upper Fusing Roller and the difference in surface temperature between the Upper and Lower Fusing Rollers when S1 is turned ON. (See table below.)

*Predrive Time

Condition When S1 is Turned ON	Starting Temperature (Upper Fusing Roller Surface Temperature)	Predrive Time
The surface temperature of the Upper Fusing Roller is less than 170 °C	170 °C	85 sec. (120 sec.)
The surface temperature of the Upper Fusing Roller is 170 °C or more and the difference in surface temperature between the Upper and Lower Fusing Rollers is 120 °C or more.	180 °C	40 sec.
The surface temperature of the Upper Fusing Roller is 170 °C or more and the difference in surface temperature between the Upper and Lower Fusing Rollers is less than 120 °C.	190 °C	5 sec.

= The following sequence is when making a single copy in full size on A4 crosswise paper fed from the 1st Drawer. =

C The Start key is pressed.



- ON → Fusing Motor M6
- ON → Optical Section Cooling Fan Motor M17, Ventilation Fan Motor M19, Toner Suction Fan Motor M20, Fusing Unit Ventilation Fan Motor M8, (M11 Cooling Fan Motor M33,) and Power Supply Unit Cooling Fan Motor M29
  - → Suction Fan Motor M18 turns at full speed.
- Approx. 16 msec.
  - ON → PC Drum Drive Motor M5
  - ON → Developing bias
  - Approx. 100 msec. ON → Exposure Lamp LA1, Main Erase Lamp LA2, and Image Erase Lamp LD1
    - → Pre-Image Transfer Erase Lamp LD2 and Pre-Cleaning Erase lamp LD3
  - Approx. 100 msec. ON → PC Drum Charge Corona and Image Transfer/Paper Separator Coronas
- ON → Paper Take-Up Motor M1, Vertical Transport Motor M2, and Transport Motor M3
- ON → 1st Drawer Paper Take-Up Clutch CL1

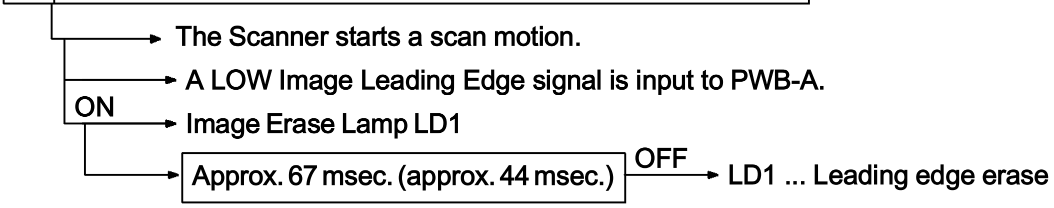
Vertical Transport Sensor 1 PC10 is blocked (L).

- Approx. 47 msec. (approx. 31 msec.) OFF → CL1, M1

Paper Leading Edge Sensor PC27 is blocked (L).

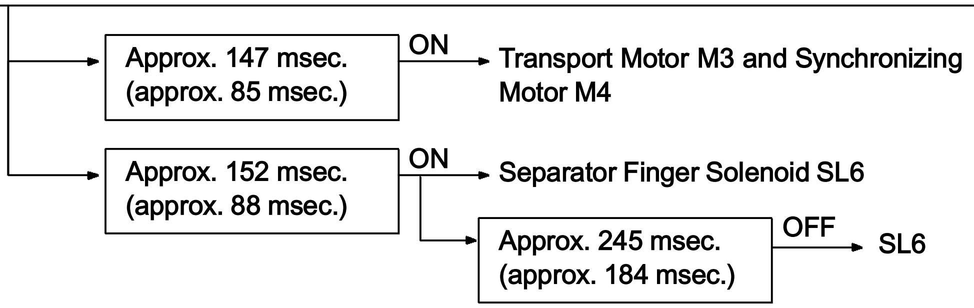
- Approx. 67 msec. (approx. 34 msec.) OFF → M2, M3

D Master Board PWB-A outputs a LOW SCAN signal to Scanner Control Processor Board UN2.

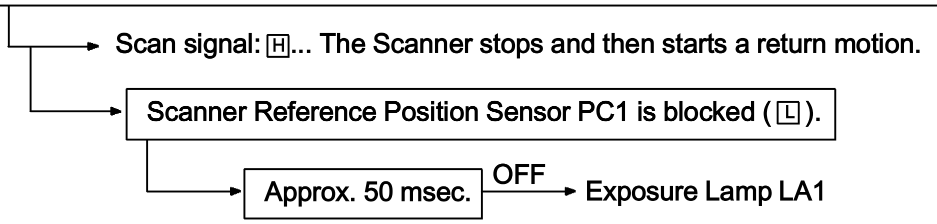


- → The Scanner starts a scan motion.
- → A LOW Image Leading Edge signal is input to PWB-A.
- ON → Image Erase Lamp LD1
  - Approx. 67 msec. (approx. 44 msec.) OFF → LD1 ... Leading edge erase

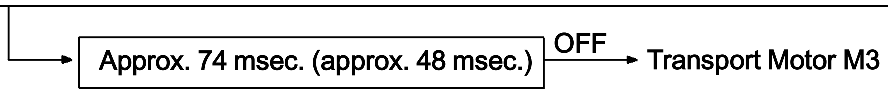
E **Scanner Control Processor Board UN2 outputs a LOW Image signal to PWB-A.**


Approx. 147 msec.
(approx. 85 msec.)
ON
Transport Motor M3 and Synchronizing Motor M4
Approx. 152 msec.
(approx. 88 msec.)
ON
Separator Finger Solenoid SL6
Approx. 245 msec.
(approx. 184 msec.)
OFF
SL6

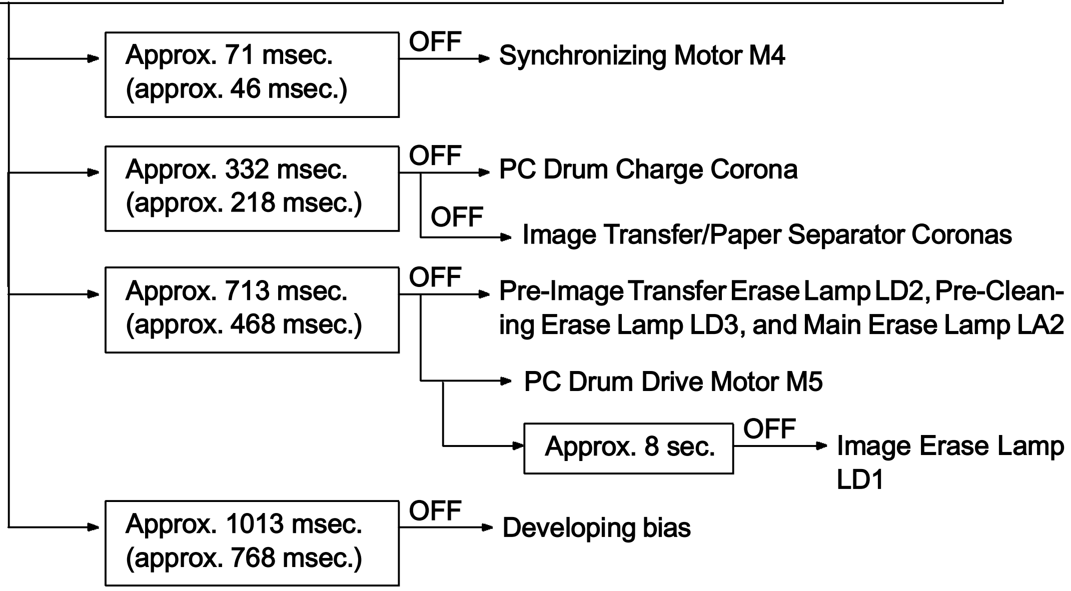
F **Scanner Control Processor Board UN2 outputs a HIGH Image signal to PWB-A.**


Scan signal: H... The Scanner stops and then starts a return motion.
Scanner Reference Position Sensor PC1 is blocked (L).
Approx. 50 msec.
OFF
Exposure Lamp LA1

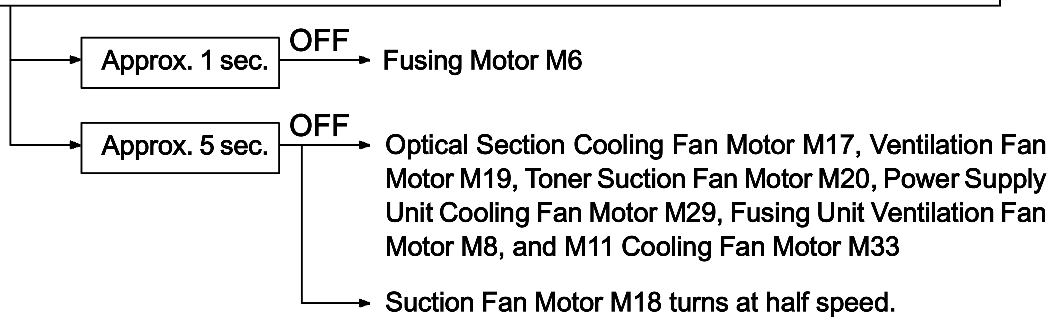
G **The trailing edge of the paper moves past Transport Roller Sensor PC26 (unblocked: H).**


Approx. 74 msec. (approx. 48 msec.)
OFF
Transport Motor M3

H **The trailing edge of the paper moves past Paper Leading Edge Sensor PC27 (unblocked: H).**


Approx. 71 msec.
(approx. 46 msec.)
OFF
Synchronizing Motor M4
Approx. 332 msec.
(approx. 218 msec.)
OFF
PC Drum Charge Corona
OFF
Image Transfer/Paper Separator Coronas
Approx. 713 msec.
(approx. 468 msec.)
OFF
Pre-Image Transfer Erase Lamp LD2, Pre-Cleaning Erase Lamp LD3, and Main Erase Lamp LA2
PC Drum Drive Motor M5
Approx. 8 sec.
OFF
Image Erase Lamp LD1
Approx. 1013 msec.
(approx. 768 msec.)
OFF
Developing bias

I **The trailing edge of the paper moves past Paper Exit Sensor PC33 (unblocked: H).**



Approx. 1 sec. — OFF → Fusing Motor M6

Approx. 5 sec. — OFF → Optical Section Cooling Fan Motor M17, Ventilation Fan Motor M19, Toner Suction Fan Motor M20, Power Supply Unit Cooling Fan Motor M29, Fusing Unit Ventilation Fan Motor M8, and M11 Cooling Fan Motor M33

→ Suction Fan Motor M18 turns at half speed.

1149SBM0500A

5 WATCHDOG (CPU OVERRUN MONITOR) FUNCTION

The watchdog function monitors whether any of the CPUs mounted in the copier overrun. If this function detects that a CPU overruns, the copier automatically resets the CPU, thereby restarting the logic circuit and mechanism.

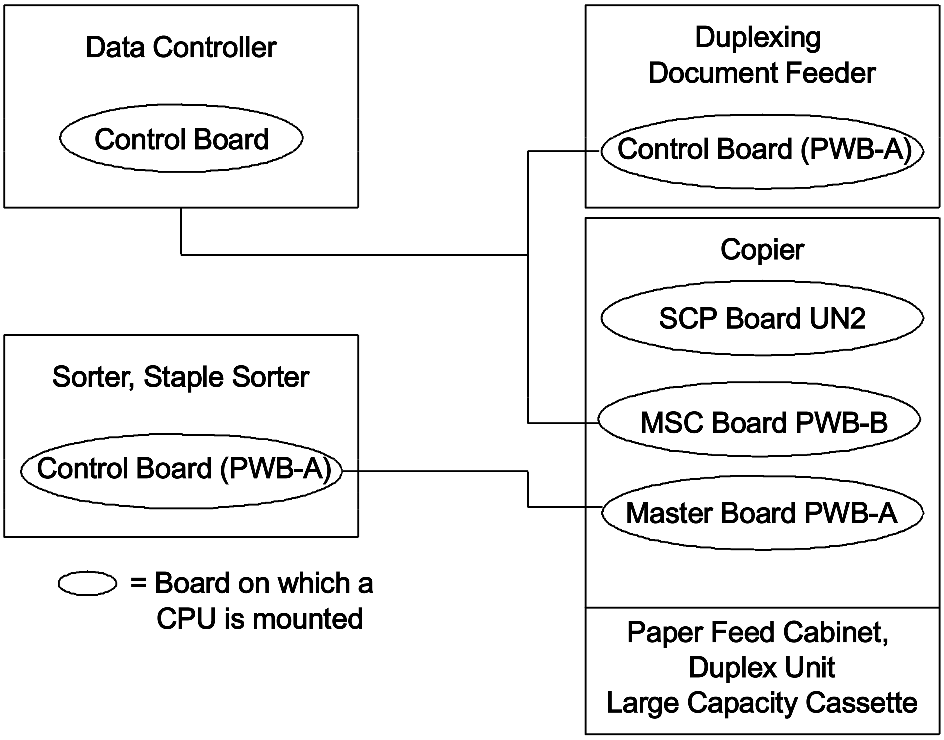
Even if a copier CPU operates erratically due to electrical noise, therefore, the copier is able to recover from the faulty condition so that the number of visits made by the Technical Representative for CPU overrun can be minimized.

1161SBM0501A

5-1. Configuration

The copier has three printed-circuit boards each on which a CPU is mounted:
*SCP Board UN2 that controls the optical system,
*Master Board PWB-A that controls the copier, Paper Feed Cabinet and Duplex Unit, and
*MSC Board PWB-B that controls the control panel and system.
In addition to these, each of the control boards for the Data Controller, Duplexing Document Feeder, and Sorter/Staple Sorter is equipped with a CPU.

The watchdog functions are summarized as follows:
*Each of the copier CPUs monitors whether or not it overruns.
*The MSC CPU monitors the communications conditions of the CPUs in the Duplexing Document Feeder and Data Controller.
*The Master CPU monitors the communications conditions of the CPUs in the Sorter and Staple Sorter.
*The control boards for the Paper Feed Cabinet and Duplex Unit do not have a CPU in them. Instead, the Master CPU in the copier controls their operations.


Data Controller
Control Board
Duplexing Document Feeder
Control Board (PWB-A)
Copier
SCP Board UN2
MSC Board PWB-B
Master Board PWB-A
Sorter, Staple Sorter
Control Board (PWB-A)
= Board on which a CPU is mounted
Paper Feed Cabinet, Duplex Unit Large Capacity Cassette

1149SBM0502A

5-2. Watchdog Function Post-Processing

The following processing is performed if a faulty condition is detected in the CPU.

When the copier CPU is found faulty:

- All CPUs including those of the options are reset and the system is restarted. If the CPU is found faulty during a copy cycle, the system attempts to feed all sheets of paper out of the copier before resetting. (If paper is left inside the copier, the copier detects it as a misfeed as it is restarted.)

When an option CPU is found faulty:

- The option relays are turned OFF and ON and all options are then restarted. If the CPU is found faulty during a copy cycle, the copier stops the paper take-up sequence and feeds all sheets of paper out of the copier before resetting.

The Watchdog Counter available from the Tech. Rep. mode allows the Technical Representative to check if any faulty condition has occurred in the CPU. For details, see SWITCHES ON PWBs.

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6 MALFUNCTION BYPASS FUNCTION

- When a malfunction occurs in the copier, the malfunction bypass function permits the copier to continue operating if that malfunction is one of the predefined candidates for an isolated malfunction and if it will not affect the current copying operation. But, if an isolated malfunction occurs anytime during the actual copy cycle, the copier considers it a normal malfunction.
- If a copying function involving an isolated malfunction is selected, the message “Selected mode can’t be used.” appears on the Touch Panel and the copier rejects that function.
- When an isolated malfunction occurs, a tiny wrench “ 🔧 ” indicator appears in the lower left corner of the Basic Screen. Access the “Machine Status” display by touching the wrench icon or via the Tech. Rep. mode to ascertain the trouble code. Then refer to the Troubleshooting Manual for details.
- Trouble codes for up to five isolated malfunctions are shown on the “Machine Status” display. When a sixth isolated malfunction occurs, the copier considers it a normal malfunction, prompting a Tech. Rep. call. (The sixth malfunction is shown on the Touch Panel.) But, if all of the paper feed ports (except the manual feed port) show an isolated malfunction, the copier considers them a normal malfunction even though the isolated malfunction count may be less than five. The display also tells the condition when the image stabilization controls are not properly working.

- For the details of the Isolated malfunction codes, see TROUBLESHOOTING for the copier and the specific SERVICE MANUAL for the options.

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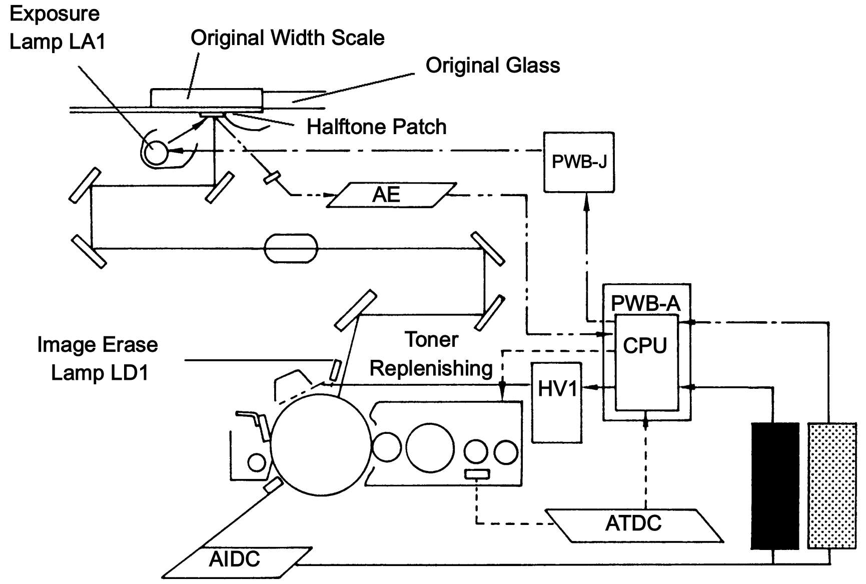
7 IMAGE STABILIZATION SYSTEM

◆The following image stabilization controls are provided to ensure stabilized copy image.

Item	Quality	Purpose	Control
Initial Setting	Image density, gradation	To make initial settings of grid voltage (Vg), optimum Exposure Lamp voltage, and AE Sensor gain.	Sets the initial values for grid voltage correction, optimum Exposure Lamp voltage correction, and AE Sensor gain adjustment.
Regular correction	Image density	To compensate for any drop in image density due to a deteriorating PC Drum.	Corrects the grid voltage and T/C through AIDC Sensor control.
	Gradation	To compensate for any drop in the intensity of LA1 light due to a contaminated optical system.	Corrects the optimum Exposure Lamp voltage through AIDC control.
	Foggy background	To keep a given toner-to-carrier ratio of the developer in the Developer Mixing Chamber.	Provides toner replenishing control by means of the ATDC Sensor. (For details, see 13. DEVELOPING UNIT.)
Correction made immediately after Power Switch is turned ON	Image density, gradation	To compensate for any drop in PC Drum surface potential when the copier is cool immediately after the Power switch is turned ON.	Corrects the grid voltage and optimum Exposure Lamp voltage through AIDC Sensor control.
Correction for Faulty AIDC Sensor	Image density, gradation	To compensate for image density and gradation aggravated by a faulty AIDC Sensor.	Corrects the grid voltage and optimum Exposure Lamp voltage according to the time through which the PC Drum has turned and the copier has run.

◆The following is the block diagram of the image stabilization system.



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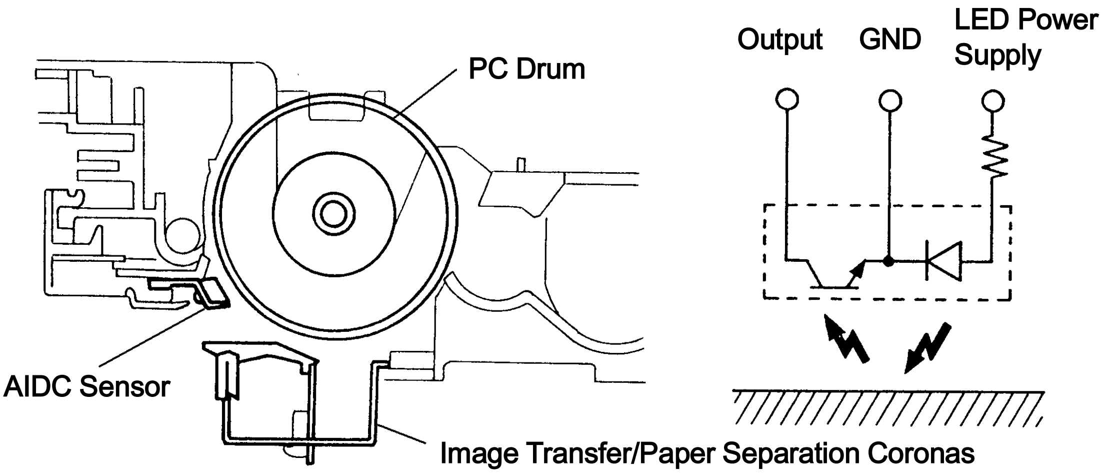
7-1. AIDC Sensor

To provide image stabilization control, this copier has AIDC Sensor PWB-H fitted to the Cleaning Unit of the Imaging Unit. The sensor is used to detect the toner density and background level on the PC Drum.

Operation

1: The PWB-H LED projects approx. 950-nm infrared light onto the surface of the PC Drum.
2: The PWB-H phototransistor detects the amount of light reflected back.
3: The phototransistor outputs a voltage corresponding to the intensity of the light reflected back.


PC Drum
AIDC Sensor
Image Transfer/Paper Separation Coronas
Output
GND
LED Power Supply

1149M005AA

Toner Density on PC Drum	Light reflected	Output Voltage
High	Small	High
Low	Large	Low

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7-2. Image Stabilization Control Processing Timing

- The image stabilization controls use the AIDC Sensor and AE Sensor as the basis, performing the following four major types of processing.
  The grid voltage, T/C, and optimum Exposure Lamp corrections are not, however, made if T/C falls outside the range of 3% to 7% at adjustment.

① AIDC Sensor adjustment
② Grid voltage and T/C correction
③ Optimum Exposure Lamp voltage correction
④ AE Sensor gain adjustment

- Processing Timing

Item	**Timing**	**Processing (○: Performed; : Not performed)**			
	Processing Order ( )	①	②	③	④
Initial setting	At the initial setup, or when the F5 test operation is run after the PC Drum has been replaced.	○	○ (*1)	○	○
Regular correction	Upon completion of the copy cycle for every 400 copies made in terms of the number of intermittent copies, equivalent to the time over which the PC Drum turns.	○	○	○	○
Correction immediately after S1 is turned ON	During warming-up immediately after the Power Switch has been turned ON (*3)	○	○ (*1)	○	○
Correction for a faulty AIDC Sensor	Upon completion of the copy cycle for every 100K copies made in terms of the number of intermittent copies, equivalent to the time over which the PC Drum has turned after a faulty AIDC Sensor was detected.	–	○ (*2)	○ (*2)	○

*1: T/C is not corrected.
*2: The grid voltage is increased by 30V and the optimum Exposure Lamp voltage by 1V.
No T/C correction is made even when the grid voltage reaches its upper limit.
*3: The correction sequence is canceled as regular correction starts.

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7-3. Details of Image Stabilization Controls

① AIDC Sensor adjustment
② Grid voltage and T/C correction
③ Optimum Exposure Lamp voltage correction
④ AE Sensor gain adjustment

- The following is the details of each image stabilization control.

①-1 AIDC Sensor coarse adjustment
This adjustment represents a coarse adjustment of the AIDC Sensor when the ordinary control of only the LED current cannot cover part-to-part variations in the AIDC Sensor (installation, circuit, deterioration, etc.). The surface of the PC Drum whose charges have been neutralized is exposed to light from the LED. The output current from the AIDC Sensor goes through the load resistance selected by a 4-bit analog switch and the 4-bit analog switch selects the load resistance so that the resultant voltage becomes 1V or less.

①-2 AIDC Sensor fine adjustment
If the AIDC Sensor is dirty with toner, it results in an error being produced in the sensor output voltage value, providing a false reference value. The surface of the PC Drum which has been erased is exposed to light from the LED. The LED current value is varied through pulse width control so that the output voltage from the AIDC Sensor becomes 1V.

Controlled Part	Control Signal	ON	OFF	WIRING DIAGRAM
AIDC Sensor	PJ21A-4	Pulse output		12-K

② Grid voltage and T/C correction
The Image Erase Lamp produces a solid-black pattern on the surface of the PC Drum and the AIDC Sensor reads the pattern. The grid voltage is then varied so that the output from the AIDC Sensor remains at a given level or higher, which ensures that the toner-to-carrier ratio on the surface of the PC Drum becomes constant.
If an even greater solid-black density is required when the upper control limit of the grid voltage has already been reached, the target control value of T/C is raised in 0.5% steps up to 5%, thus terminating the adjustment sequence.

	Control Value	1 Step	Initial Value
Grid Voltage	580 to 850V	30V	640V

<Relation with Image Density>

The "Image Exposure" function of "Tech. Rep. Choice" available from the Tech. Rep. mode enables fine-adjustments of the grid voltage (solid-black image density) to be made. It specifies how many volts the optimum grid voltage determined by the image stabilization control is to be increased or decreased. This fine-adjustment value remains the same even when the optimum grid voltage is later varied by the image stabilization control.

Controlled Part	Control Signal	ON	OFF	WIRING DIAGRAM
Grid voltage output from High Voltage Unit HV1	PJ6A-4A	Pulse Output		15-E

③ Optimum Exposure Lamp voltage correction

The Exposure Lamp is turned ON to illuminate the halftone patch on the back of the Original Width Scale, thereby producing a halftone pattern on the surface of the PC Drum. The Exposure Lamp voltage is then varied so that the output from the AIDC Sensor falls within the target range, thereby ensuring an optimum exposure level.

	Control Value	1 Step	Initial Value
Exposure Lamp voltage (100V Areas)	54 to 84V	1V	58V
Exposure Lamp voltage (200V Areas)	80 to 160V	2V	116V

*The control panel shows –10V (–20V for the 200V areas) (Level History).

<Relation with "Manual Exposure Level" of F5>

The "manual exposure level" of Function F5 available from the Tech. Rep. mode enables fine-adjustments of the Exposure Lamp voltage (halftone image density) to be made. It specifies how many volts the optimum Exposure Lamp voltage determined by the image stabilization control is to be increased or decreased. This fine-adjustment value remains the same even when the optimum Exposure Lamp voltage is later varied by the image stabilization control.

Controlled Part	Control Signal	ON	OFF	WIRING DIAGRAM
Exposure Lamp Regulator (PWB-J) REM	PJ6A-8B	Pulse output		27-C

④ AE Sensor gain adjustment

The Exposure Lamp is turned ON to illuminate the blank sheet of paper placed on the Original Glass (when an F5 operation is run) or the halftone patch on the back of the Original Width Scale (when the AE Sensor gain is adjusted in a sequence other than F5). The reflected light is then read by the AE Sensor and a gain adjustment of the AE Sensor is made to maintain an optimum Auto exposure level.

Controlled Part	Control Signal	ON	OFF	WIRING DIAGRAM
AE Sensor Board PWB-H	PJ22A-3A	Pulse Output		25-E

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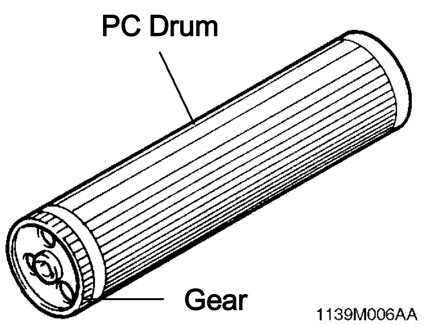
8 PC DRUM

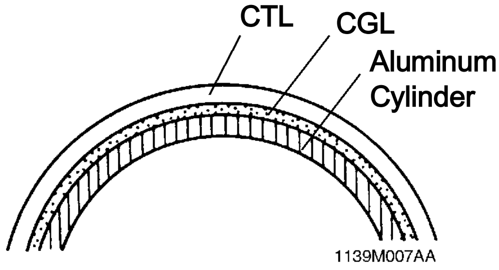
The photoconductive drum used in this copier is the organic photoconductor (OPC) type. The drum is made up of two distinct, semiconductive materials on an aluminum alloy base. The outer of the two layers is called the Charge Transport Layer (CTL), while the inner layer is called the Charge Generating Layer (CGL).

Handling Precautions

This photoconductor exhibits greatest light fatigue after being exposed to light over an extended period of time. It must therefore be protected from light by a clean, soft cloth whenever the Imaging Unit has been removed from the copier. Further, use utmost care when handling the PC Drum to prevent it from being contaminated.



PC Drum Cross-Sectional View



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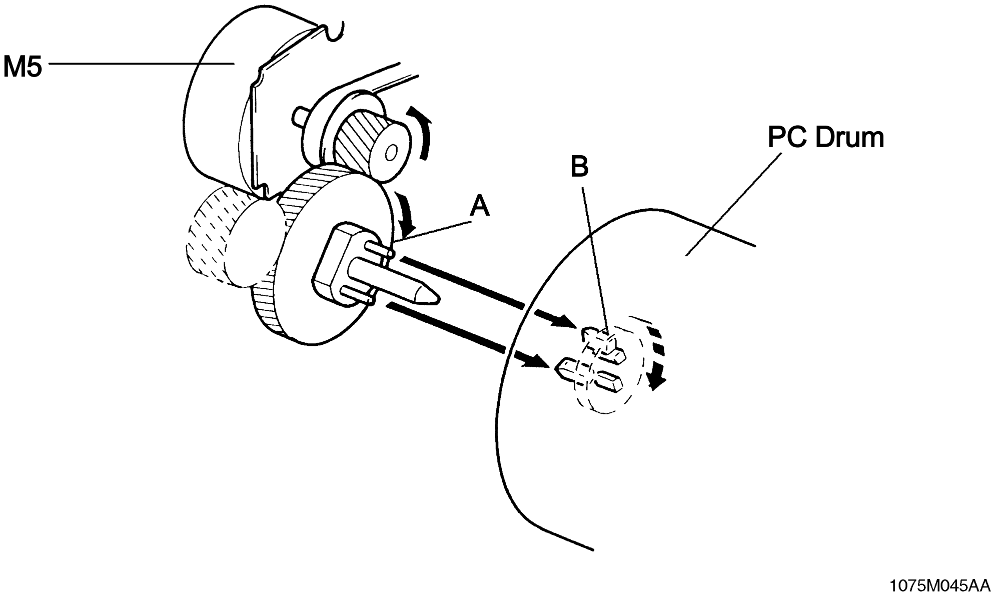
8-1. PC Drum Drive Mechanism

Drive for the PC Drum comes from PC Drum Drive Motor M5.

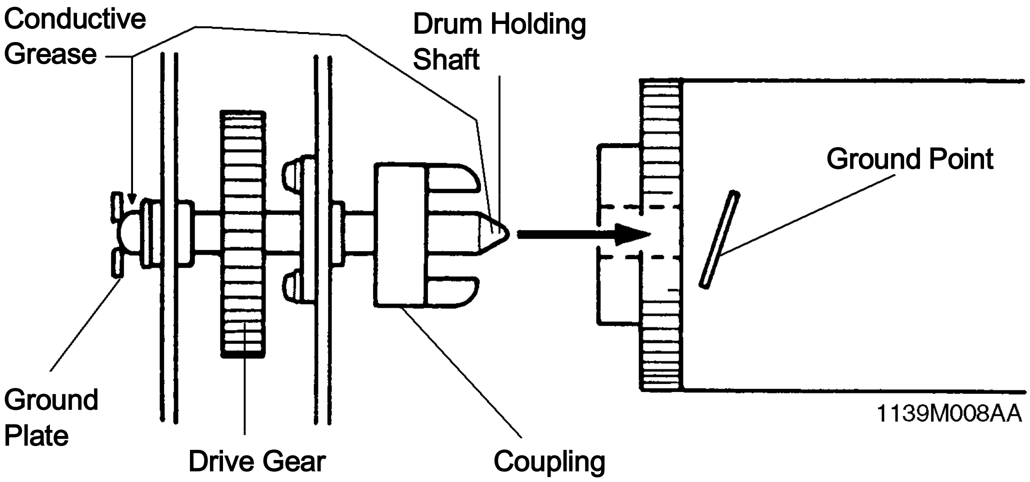


	Control Signal	ON	OFF	WIRING DIAGRAM
M5	PJ4A-10B	L	H	19-D

1161SBM00802A

8-2. Grounding of the PC Drum

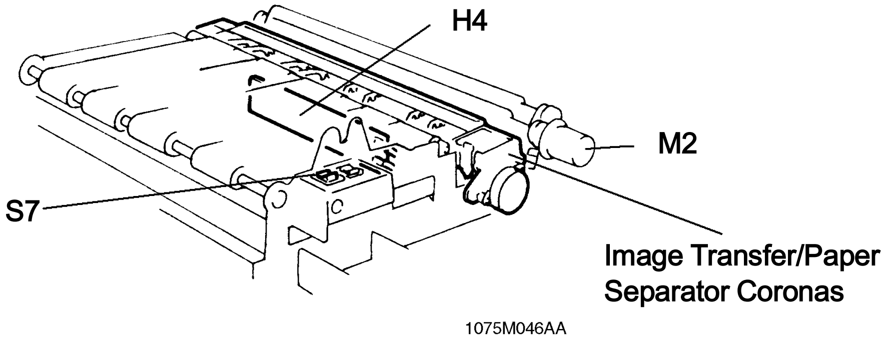
The PC Drum ground point is inside the rear end. When the PC Unit is slid into the copier, the Drum Holding Shaft contacts the ground point. This provides for assured grounding of the PC Drum through the Ground Plate in the rear to the frame of the copier.


Conductive Grease
Drum Holding Shaft
Ground Point
Ground Plate
Drive Gear
Coupling
1139M008AA

1161SBM0803A

8-3. Drum Dry Heater

- Drum Dry Heater H4 is located beside the Image Transfer/Paper Separator Coronas. It is a panel heater that prevents condensation from forming on the surface of the PC Drum.
- H4 turns ON when:
  1. The power cord is plugged into the wall outlet.
  2. Power Switch S1 is in the OFF position.
  3. Drum Dehumidifying Switch S7 is in the ON position.


H4
M2
S7
Image Transfer/Paper Separator Coronas
1075M046AA

	Control Signal	ON	OFF	WIRING DIAGRAM
H4	PJ8C-5	-	-	13-O
S7	PJ8C-1	-	-	13-O

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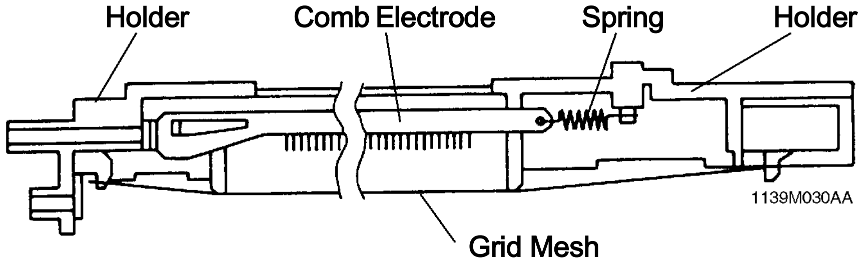
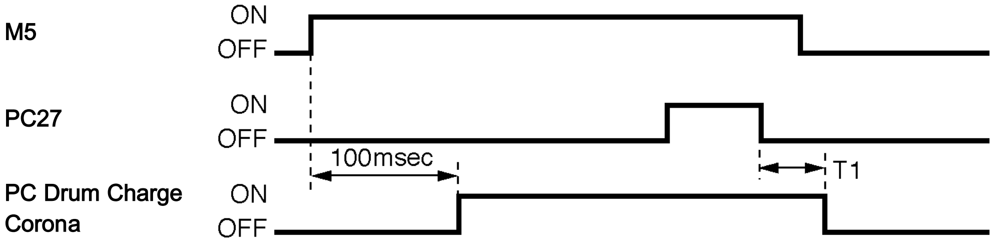
9 DRUM CHARGING

The PC Drum Charge Corona has a Scorotron grid to deposit a negative DC charge evenly across the surface of the PC Drum. The grid voltage (VG) applied to the grid mesh is selected between -640V (initial value, variable according to image stabilization controls) in the normal mode and the value in the normal mode +120V in the Photo mode by the Constant-Voltage Circuit in PC Drum Charge HV HV1.

The Corona Unit has a Comb Electrode which minimizes the amount of ozone produced. The conventional wire type corona unit produces a large amount of ozone due to corona discharge in radial directions. The comb electrode type, on the other hand, discharges only toward the Grid Mesh, meaning a reduced amount of ozone is produced.


Holder
Comb Electrode
Spring
Holder
1139M030AA
Grid Mesh


M5
ON
OFF
PC27
ON
OFF
100msec
T1
PC Drum Charge
Corona
ON
OFF
1161T16MCA

T1 : 332msec (EP6001)
218msec (EP8015)

	Control Signal	ON	OFF	WIRING DIAGRAM
PC Drum Charge Corona	PJ6A-1A	L	H	15-E

	Control Signal	Normal Mode	Photo Mode	WIRING DIAGRAM
Grid Voltage (VG)	PJ6A-4	Pulse output		15-E

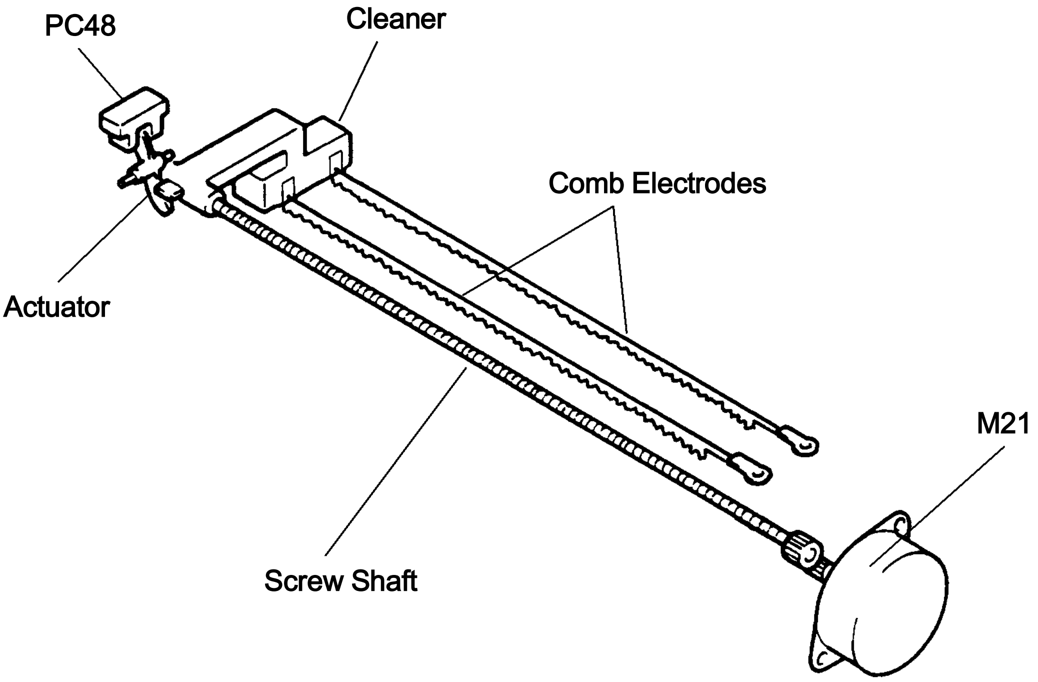
1161SBM0901A

9-1. PC Drum Charge Corona Comb Electrode Cleaning Mechanism

The two PC Drum Charge Corona Comb Electrodes are provided with a cleaning mechanism that removes from the electrodes any toner and dust particles which would otherwise cause uneven charging, white streaks on copies, and charge leak.

<Mechanism>

- When PC Drum Charge Comb Cleaning Motor M21 is energized, its drive is transmitted to the Screw Shaft. This in turn moves the Cleaner mounted on the Screw Shaft.
- Drum Comb Cleaner Home Position Sensor PC48 detects the Cleaner at its standby position (which is the reference position for its cleaning motion). The Cleaner makes one round trip per each cleaning cycle to clean the electrodes.

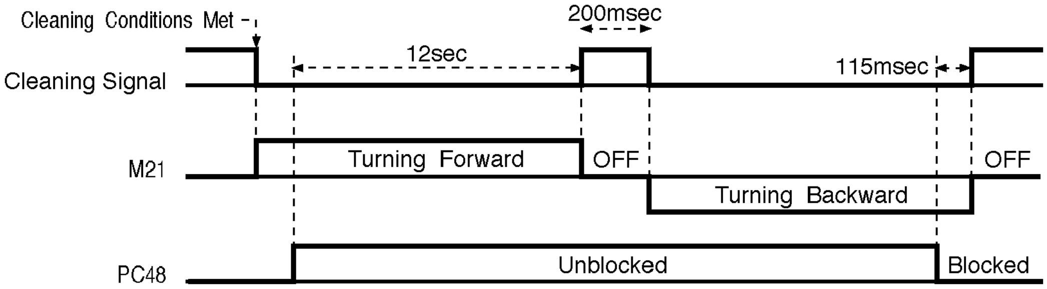


1161M004AA

<Control>

- The PC Drum Charge corona wires are automatically cleaned under the following conditions. The cleaning function is, however, disabled if the “Charge Wire Cleaning” function of “System Input” available from the Tech. Rep. mode has been set to “Off”.

(1) A period of 200 msec. has elapsed after Power Switch S1 has been turned ON.
(2) The number of copies made exceeds 2,000 after S1 has been turned ON and 10 minutes elapse after the last copy cycle has been completed.
(3) A PC Drum Charge Corona malfunction, which has been detected, is reset.
(4) A misfeed/malfunction, which has been detected, is reset with a sheet of paper remaining at the area near the Image Transfer/Paper Separator Corona.



1161T17MCA

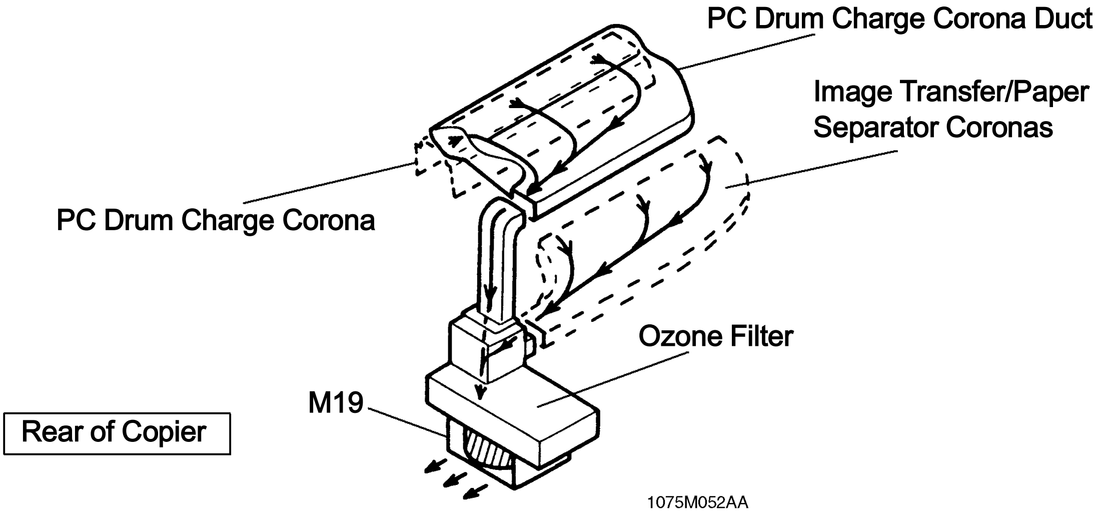
	Control Signal	Forward	Backward	WIRING DIAGRAM
M21	PJ23A-3B	Pulse Output		13-M

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC48	PJ7A-8A	H	L	19-E

1161SBM00902A

9-2. Ozone Filter

- Ozone produced by the PC Drum Charge Corona is absorbed by the Ozone Filter as the air is drawn out of the copier by Ventilation Fan Motor M19.
- This Ozone Filter is also used to absorb ozone produced by the Image Transfer/Paper Separator Coronas from the air drawn out of the copier by M19.

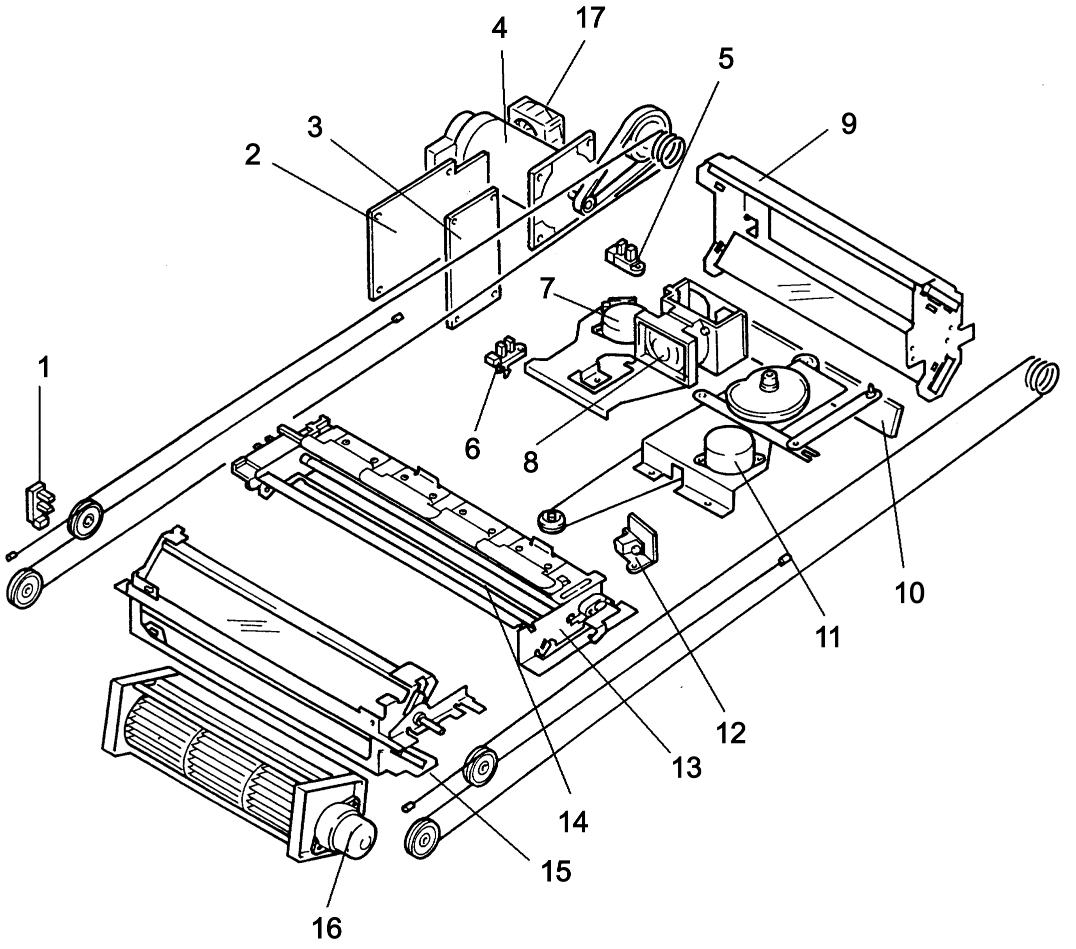

PC Drum Charge Corona Duct
Image Transfer/Paper Separator Coronas
PC Drum Charge Corona
Ozone Filter
M19
Rear of Copier
1075M052AA

	Control Signal	ON	OFF	WIRING DIAGRAM
M19	PJ3A-5A	L	H	19-O

1161SBM1000A

10 OPTICAL SECTION

- As the Scanner is moved by Scanner Motor M11, the light from Exposure Lamp LA1 is reflected off the original and guided through the six mirrors onto the surface of the PC Drum to form the electrostatic latent image.



1161M005AA

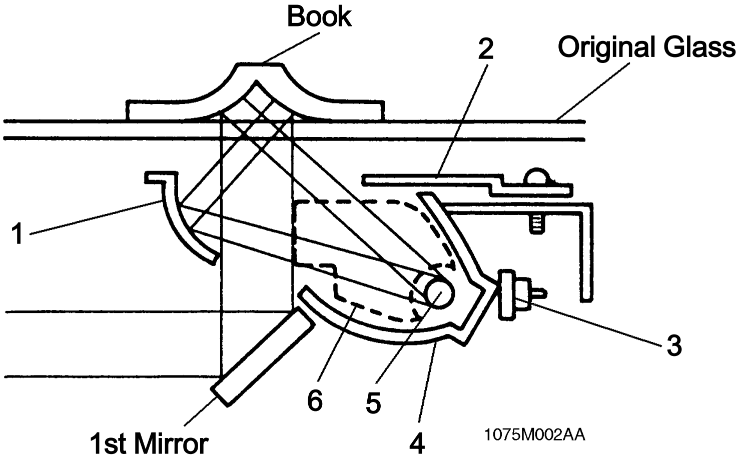
1. Scanner Reference Position Sensor PC1
2. Scanner Control Processor Board UN2
3. Exposure Lamp Regulator PWB-J
4. Scanner Motor M11
5. Lens X Direction Reference Position Sensor PC2
6. Lens Y Direction Reference Position Sensor PC3
7. Lens Y Direction Drive Motor M13
8. Lens
9. 4th/5th Mirrors Carriage
10. 6th Mirror

11 Lens X Direction Drive Motor M12

12. AE Sensor Board PWB-H
13. Scanner
14. 1st Mirror
15. 2nd/3rd Mirrors Carriage
16. Optical Section Cooling Fan Motor M17
17. M11 Cooling Fan Motor M33 (EP8015 Only)

1161SBM1001A

10-1. Function of Exposure Components



1. Auxiliary Reflector	:	Reflects light onto the areas that Exposure Lamp LA1 cannot illuminate when an original does not lie flat on the Original Glass (such as a book). It reduces shadows which would otherwise be transferred to the copy.
2. Aperture Plates	:	Regulate the amount of LA1 light illuminating the original surface. (There are four plates.)
3. Exposure Lamp Thermal Fuse TF1	:	Becomes electrically open (blows) if the temperature in the area surrounding the Main Reflector runs excessively high, thereby preventing LA1 from being kept ON or turning ON with the maximum line voltage.
4. Main Reflector	:	Ensures that light from LA1 exposes all areas of the original.
5. Exposure Lamp LA1	:	A halogen frost lamp is used and its light distribution characteristics keep the intensity of the light remaining flat.
6. Intensity Correction Mirror	:	Fitted on the front and rear ends of the Scanner, these mirrors correct the intensity of the light emitted by LA1 which is slightly attenuated at the very ends.

1161SBM1002A

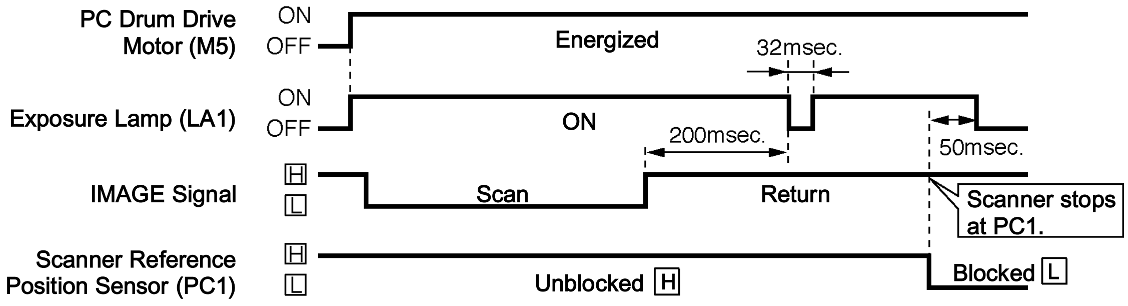
10-2. Exposure Lamp LA1

An AC halogen lamp is used as Exposure Lamp LA1.

As the exposure level is adjusted on the control panel, the duty ratio of the pulse of AVR Remote from PWB-A changes to increase or decrease the LA1 voltage, thereby changing the image density.

In Photo mode, the voltages are varied on a level 6V (200V Areas: 12V) lower than the manual Exposure Lamp voltages.

Manual EXP Setting			9	8	7	6	5	4	3	2	1
Lamp Voltage Difference (V)	**“Manual Level Priority”**	**Mode 1**	-8	-5	-2	-1	Reference	+1	+2	+5	+8
		Mode 2	-8	-6	-4	-2	Reference	+2	+4	+6	+8
		Mode 3	-8	-7	-6	-3	Reference	+3	+6	+7	+8


PC Drum Drive Motor (M5)
ON
OFF
Energized
32msec.
Exposure Lamp (LA1)
ON
OFF
ON
200msec.
50msec.
IMAGE Signal
H
L
Scan
Return
Scanner stops at PC1.
Scanner Reference Position Sensor (PC1)
H
L
Unblocked H
Blocked L

1161T32MCA

	Control Signal	**ON**	**OFF**	**WIRING DIAGRAM**
AVR Remote Signal (PWB-J)	PJ6A-8B	L	H	26-D

1161SBM1003A

10-3. AE Sensor

In the Auto Exposure Mode, the AE Sensor on AE Sensor Board PWB-H measures the intensity of the light reflected off the original, by sampling the black/white ratio of a 210-mm-wide area of the original being measured. According to this measurement, the Exposure Lamp voltage is automatically increased or decreased so that copies of consistent quality are produced.

The output from the AE Sensor is applied to PWB-A which, in turn, varies the duty ratio of the AVR Remote which varies the LA1 voltage accordingly.

Original Density (B/W Ratio)	High	Low
Intensity of Reflected Light	Low	High
PWB-H Output	High	Low
AVR Duty	Increased	Decreased
LA1 Voltage	Increased	Decreased

	Control Signal	**ON**	**OFF**	**WIRING DIAGRAM**
PWB-H (AE Sensor)	PJ22A-3A	Pulse output		25-E
AVR Remote Signal (PWB-J)	PJ6A-8B	L	H	26-D

1161SAM1004A

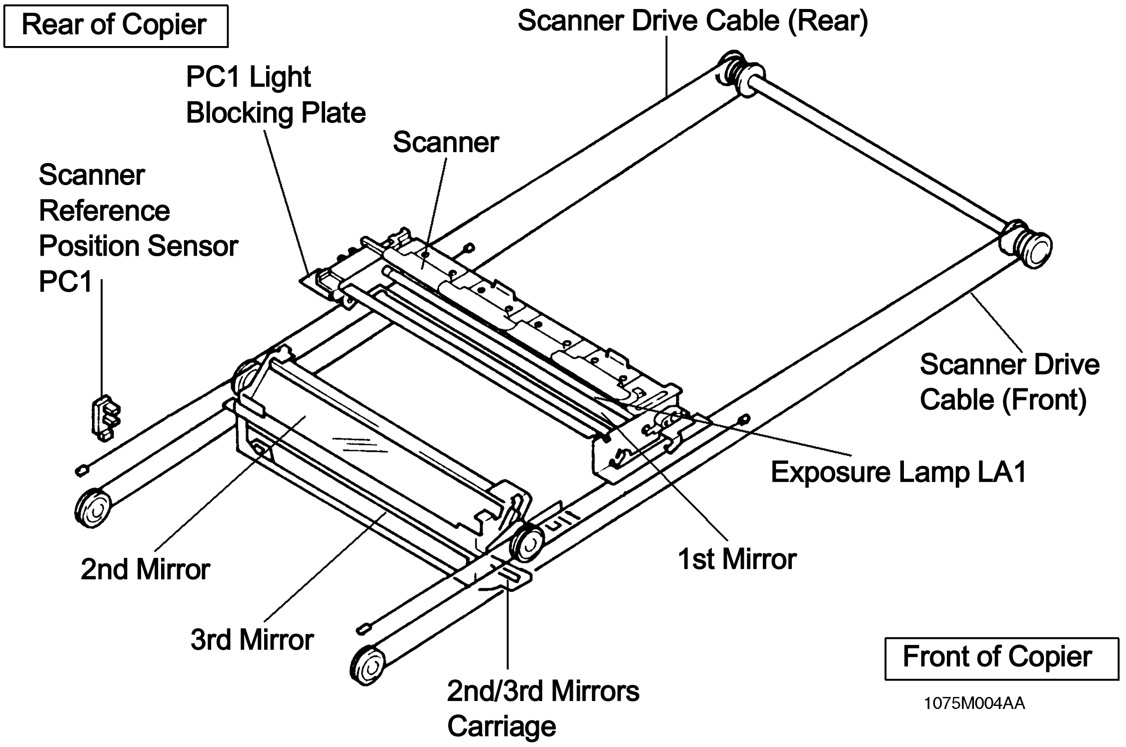
10-4. Scanner and Mirrors Carriages Moving Mechanism

<Scanner>

- The Scanner projects an even amount of light from Exposure Lamp LA1, as it moves, onto the entire surface of the original and reflects this light, with the 1st Mirror, onto the 2nd and 3rd Mirrors.
- It is driven by Scanner Motor M11 with the Scanner Drive Cables attached to the front and rear at a speed appropriate to the set zoom ratio. The speed is varied from the reference speed which is the scan speed for the full size mode.
- The Scanner is at its home position when Scanner Reference Position Sensor PC1 is blocked. This position serves as the reference for the scan motion.

<2nd/3rd Mirrors Carriage>

- The 2nd and 3rd Mirrors are mounted to their holder at right angles to each other. They let the light reflected off the 1st Mirror strike the 4th and 5th Mirrors through the Lens.
- The 2nd/3rd Mirrors Carriage is also moved by the Scanner Drive Cables and pulleys driven by M11. It travels at a speed half that of the Scanner, thereby keeping constant the optical path length between the Original Glass and Lens.

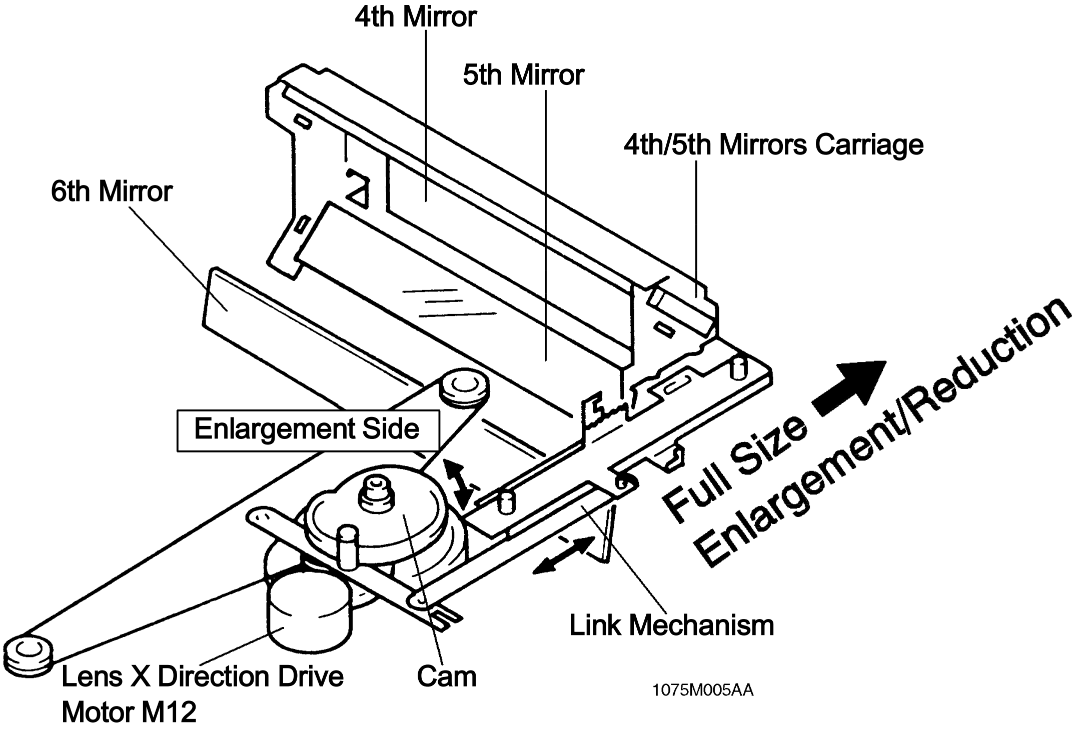

Rear of Copier
Scanner Drive Cable (Rear)
PC1 Light Blocking Plate
Scanner
Scanner Reference Position Sensor PC1
Scanner Drive Cable (Front)
Exposure Lamp LA1
2nd Mirror
1st Mirror
3rd Mirror
Front of Copier
2nd/3rd Mirrors Carriage
1075M004AA

<4th/5th Mirrors Carriage>

- The 4th and 5th Mirrors are mounted to their holder at right angles to each other. They let the light reflected from the 3rd Mirror and through the Lens strike the 6th Mirror via themselves.
- The 4th/5th Mirrors Carriage is moved in the X-direction (feeding direction) to correct the conjugation distance (the distance between the original and the surface of the PC Drum) according to the set zoom ratio. Its drive comes from Lens X Direction Drive Motor M12 which turns a cam. The rotary motion of the cam is changed to a reciprocating, or straight-line, motion of the carriage through a link mechanism.
- To ensure that a focused image of the original is reproduced on the surface of the PC Drum when in an enlargement or reduction mode, the conjugation distance must be greater than that when in the full size mode. To accomplish this, the 4th/5th Mirrors Carriage is moved in the direction of a greater conjugation distance.
- There are three different types of cams available according to the focal length of the Lens. When the Lens is replaced, the cam must also be replaced with one appropriate for the focal length of the new Lens.

Lens Focal Length (in mm)	Cam ID Marking	Cam Part No.
213.50 to 214.35	–	1046-4823-02
214.40 to 215.20	0	1046-4821-02
215.25 to 216.10	+	1046-4822-02

Note: In the illustration below, if the 4th/5th Mirrors Carriage is located at the full size position, it moves in the direction of the arrow ➡ for all enlargement or reduction modes.


4th Mirror
5th Mirror
4th/5th Mirrors Carriage
6th Mirror
Enlargement Side
Full Size
Enlargement/Reduction
Link Mechanism
Lens X Direction Drive Motor M12
Cam
1075M005AA

1161SBM1005A

10-5. Scanner Motor M11 Control

<Overview>

- A DC servomotor is used for Scanner Motor M11. The pulse width modulation, or PWM, control is employed in which the average voltage is controlled by varying the width of the Scanner drive pulse which is the voltage input to M11.
- M11 has a built-in photosensor and pulse disk. Their function is to convert the Motor shaft speed into a corresponding series of pulses. This pulse signal is input to Scanner Control Processor Board UN2.
- UN2 then calculates the Motor speed using the period of the pulse signal applied to it and controls the Scanner drive pulse which is to be applied to the Motor. This effectively stabilizes the Motor speed.
- The pulse signal applied to UN2 is also used to determine the distance over which the Scanner should travel. This distance is represented by the number of pulses corresponding to each paper size and zoom ratio.

<EP8015 only>

- As the Scanner speed is faster, M11 tends to develop more heat, resulting in erratic operation. M11 Cooling Fan Motor M33 is provided for M11, ensuring stabilized operation of the motor.

	Control Signal	ON	OFF	WIRING DIAGRAM
M33	PJ4A-1B	L	H	41-D

	Control Signal	Scan	Stop	WIRING DIAGRAM
M11 (Scan Signal)	PJ18A-1	L	H	33-E

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC1	PJ18A-3	H	L	36-E

1161SBM1006A

10-6. Lens Drive Mechanism

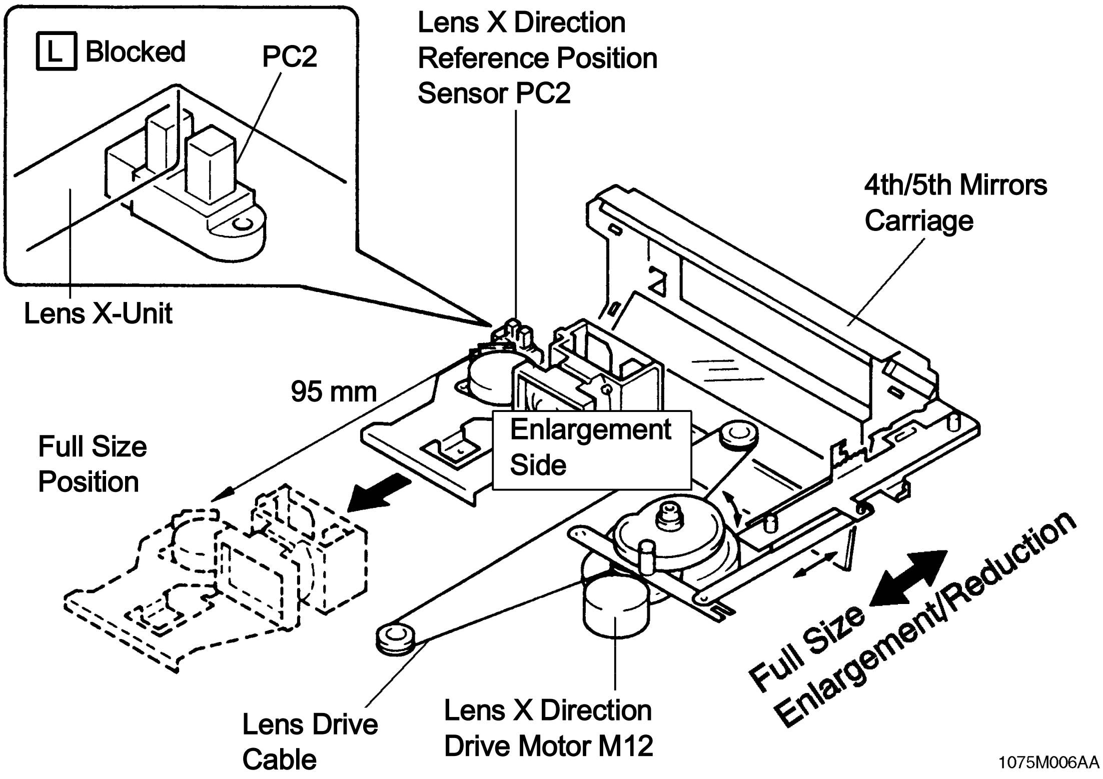
(1) Lens Drive Mechanism

- In this copier, registration for the original is to one side, while the copy paper is fed through the center of the copier. For this reason, the Lens must be moved according to the paper size even in the full size mode (× 1.000). The Lens is moved independently in the X-direction (feeding direction) and Y-direction (crosswise direction).

(2) X (Feeding) Direction Lens Motion Mechanism/Control

The Lens is moved in the X-direction to obtain a conjugation distance appropriate for the set zoom ratio.

- The Lens is moved in the X-direction by the cable wound around the pulley turned by Lens X Direction Drive Motor M12. (M12 is a stepping motor and turned forward or backward by the pulse signal output from Scanner Control Processor Board UN2.)
- The Lens is at the full size position when the Lens X-Unit moves a distance of approx. 95 mm from the position at which it has unblocked Lens X Direction Reference Position Sensor PC2 (the sensor going from LOW to HIGH). This position provides the reference for Lens movement in various zoom ratios.
- As the Lens moves in the X-direction, the 4th/5th Mirrors Carriage moves to correct the conjugation distance appropriate for the zoom ratio.

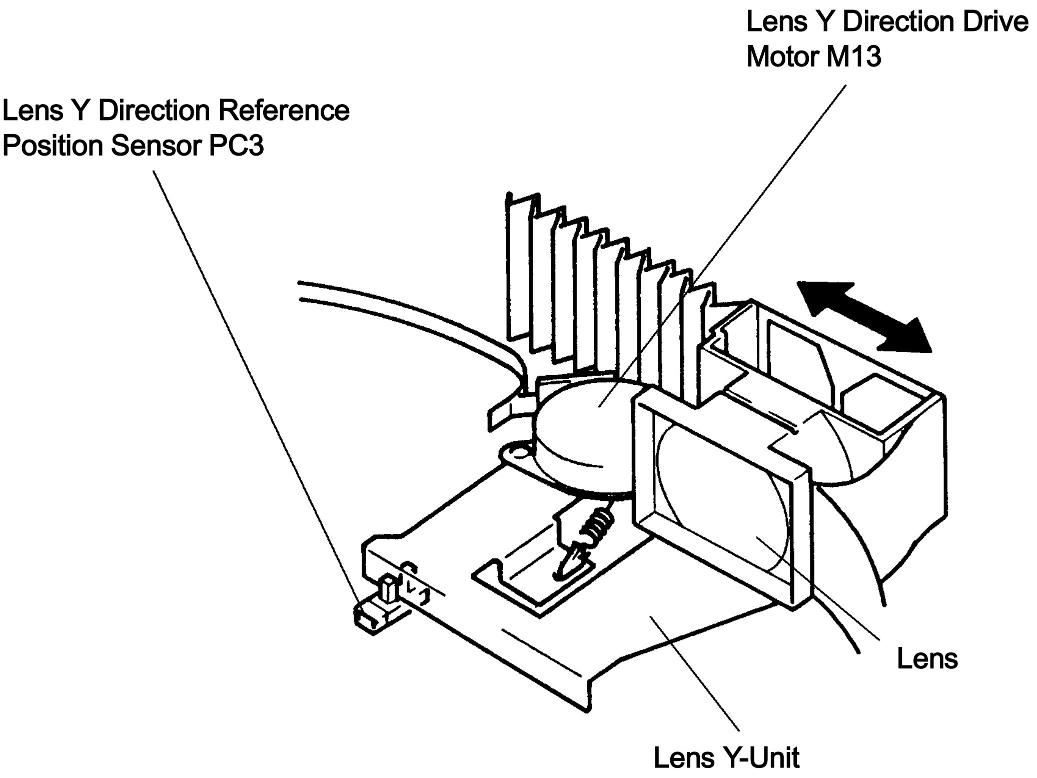

L Blocked
PC2
Lens X-Unit
Lens X Direction Reference Position Sensor PC2
4th/5th Mirrors Carriage
95 mm
Full Size Position
Enlargement Side
Full Size
Enlargement/Reduction
Lens Drive Cable
Lens X Direction Drive Motor M12

1075M006AA

(3) Y (Crosswise) Direction Lens Motion Mechanism/Control

The Lens must be moved in the Y-direction, since the original is always aligned with the rear side for registration regardless of the paper size (crosswise length) and zoom ratio.

- The Lens is moved in the Y (crosswise) direction by a rack and pinion gear driven by Lens Y Direction Drive Motor M13. (M13 is a stepping motor and turned forward or backward by the pulse signal output from Scanner Control Processor Board UN2.)



Lens Y Direction Drive Motor M13
Lens Y Direction Reference Position Sensor PC3
Lens
Lens Y-Unit

1075M007AB

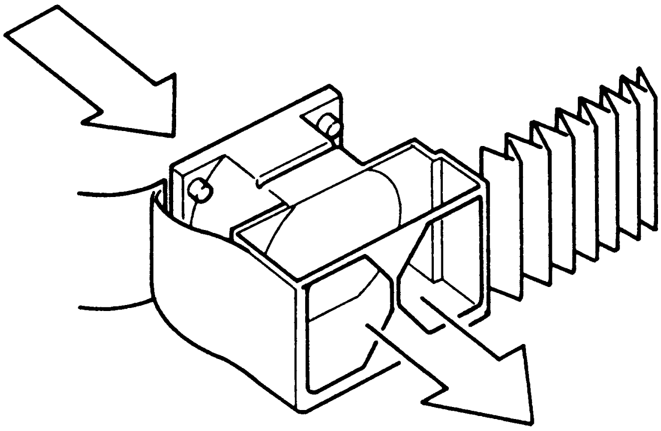
	Control Signal	Forward	Backward	WIRING DIAGRAM
M12	UN2	Pulse Output		38-B
M13	UN2	Pulse Output		41-E

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC2	UN2	L	H	33-D
PC3	UN2	L	H	41-F

1161SBM1007A

10-7. Intensity Correction

Because of the nature of the Lens, the intensity of the LA1 light after passing through the Lens tends to be higher at the center and lower toward both sides. To solve this problem, there is a Lens Aperture Cover installed at the back of the Lens. It limits the amount of light at the center to ensure that an even amount of light strikes the surface of the PC Drum.

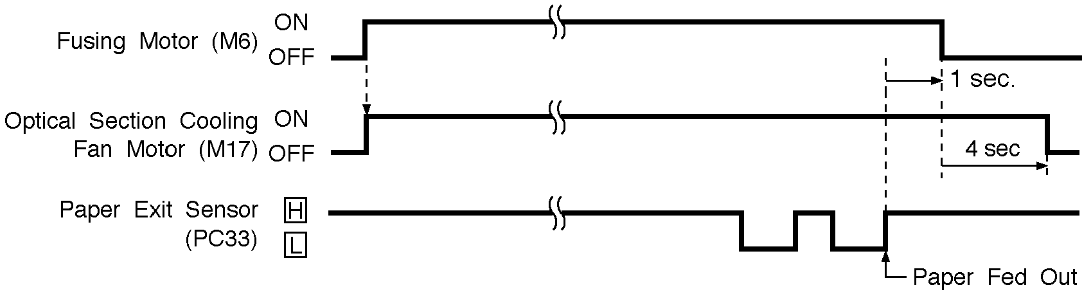


1075M003AA

1161SBM1008A

10-8. Optical Section Cooling Fan Motor

- **Optical Section Cooling Fan Motor M17 draws air from the outside into the inside of the copier to cool the areas around the optical section (especially the Original Glass) which is heated by lit Exposure Lamp LA1.**


Fusing Motor (M6)
ON
OFF
1 sec.
Optical Section Cooling Fan Motor (M17)
ON
OFF
4 sec
Paper Exit Sensor (PC33)
H
L
Paper Fed Out

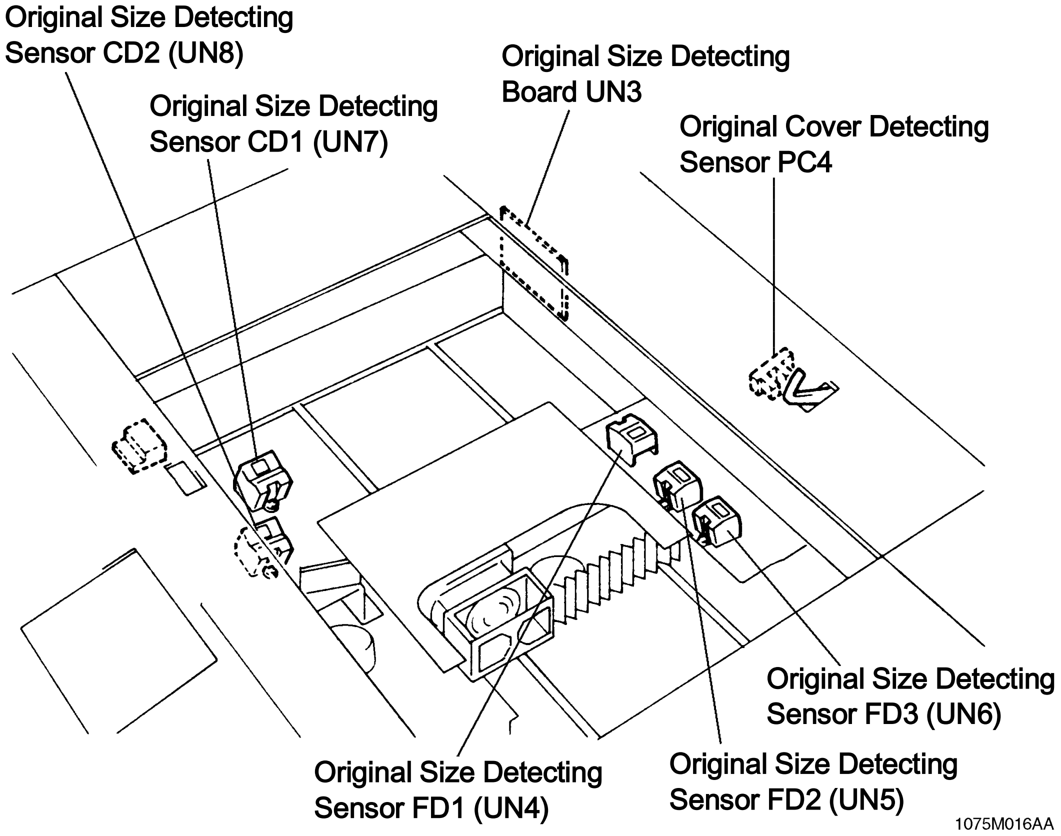
1161T18MCA

	Control Signal	ON	OFF	WIRING DIAGRAM
M17	PJ4A-7B	L	H	41-D

1161SBM1100A

11 ORIGINAL SIZE DETECTING SENSORS

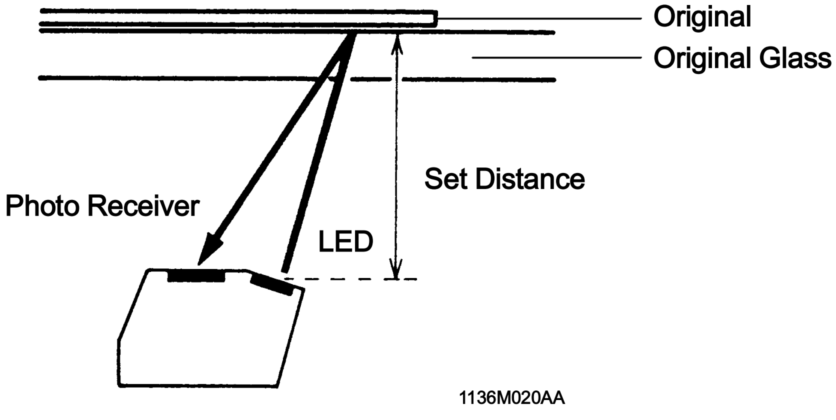
The five sensors fixed in the optical section receive the light reflected off the original to determine the size of the original in the Auto Paper and Auto Size mode. (The image density of the original, or OD, that can be detected is 0.8 or less.)


Original Size Detecting Sensor CD2 (UN8)
Original Size Detecting Sensor CD1 (UN7)
Original Size Detecting Board UN3
Original Cover Detecting Sensor PC4
Original Size Detecting Sensor FD3 (UN6)
Original Size Detecting Sensor FD1 (UN4)
Original Size Detecting Sensor FD2 (UN5)
1075M016AA

1161SBM1101A

11-1. Original Size Detecting Operation

Each photo receiver of the original size detecting sensors (UN4 to UN8) responds to reflected light of a given intensity with reference to the intensity of the light emitted by each LED. This allows the Original Size Detecting Board to determine whether or not there is an original within a set distance.


Original
Original Glass
Set Distance
Photo Receiver
LED
1136M020AA

1161SBM1102A

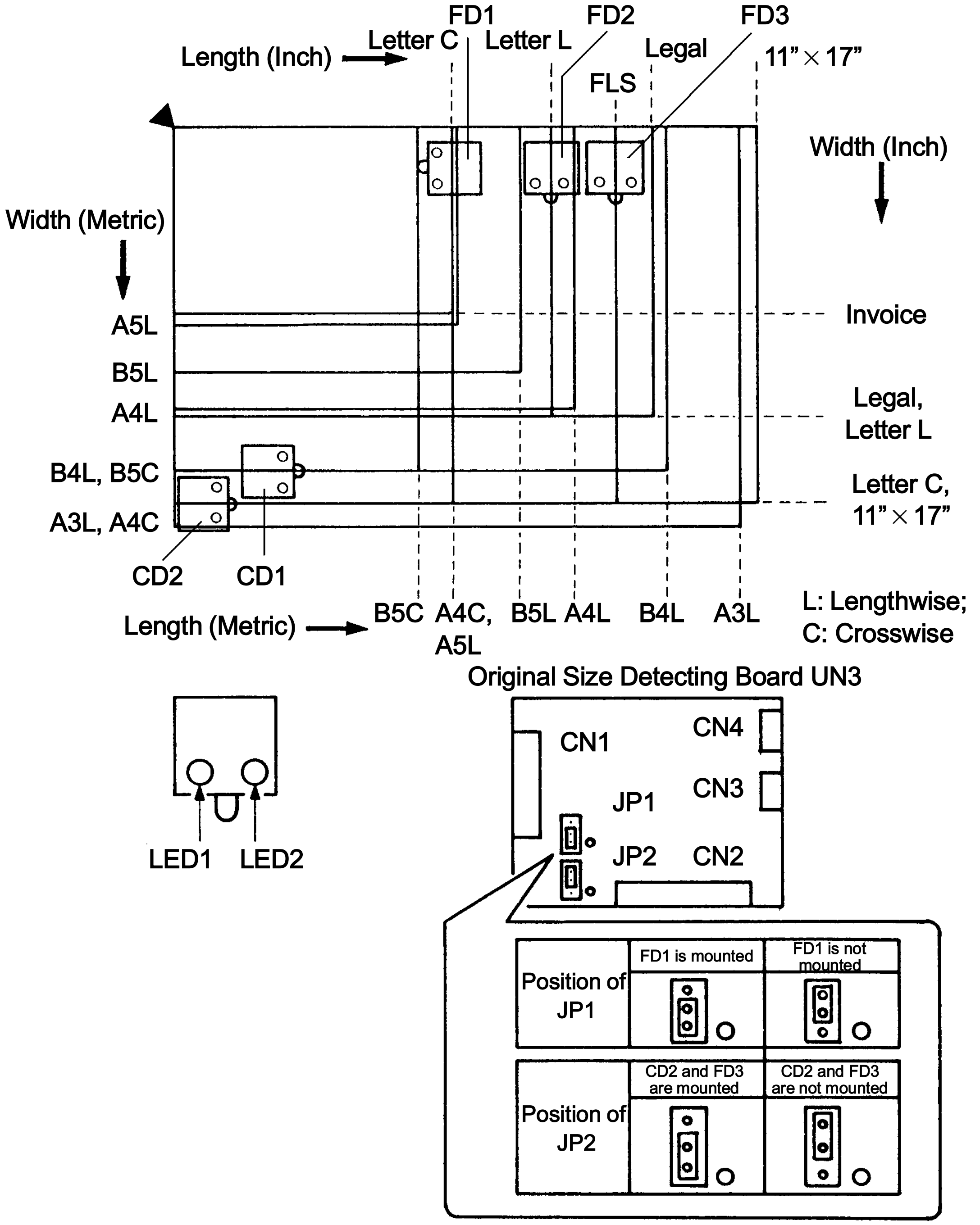
11-2. Sensor Locations

- The number and location of the Original Size Detecting Sensors vary depending on the marketing area as shown below.

○: Standard ●: Optional

Sensors Areas	CD1 (UN7)	CD2 (UN8)	FD1 (UN4)	FD2 (UN5)	FD3 (UN6)
Metric Areas	○	●	○	○	●
Inch Areas	○	●	●	○	●
Hong Kong Area	○	○	○	○	○

NOTE: If the optional sensors are installed, set Jumper Connector JP2 on UN3 as illustrated below and run the F7 operation.


FD1
FD2
FD3
Length (Inch)
Letter C
Letter L
Legal
11" × 17"
FLS
Width (Inch)
Width (Metric)
A5L
B5L
A4L
B4L, B5C
A3L, A4C
Invoice
Legal,
Letter L
Letter C,
11" × 17"
CD2
CD1
Length (Metric)
B5C
A4C,
A5L
B5L
A4L
B4L
A3L
L: Lengthwise;
C: Crosswise
Original Size Detecting Board UN3
CN1
CN4
CN3
JP1
JP2
CN2
LED1
LED2
Position of JP1
FD1 is mounted
FD1 is not mounted
Position of JP2
CD2 and FD3 are mounted
CD2 and FD3 are not mounted

1136M022CA

11-3. Size Detection

- Original Size Detecting Board UN3 reads the output data provided by the original size detecting sensors (UN4 to UN8). By comparing the data from each sensor with the threshold level, it determines whether there is an original placed on the Original Glass. UN3 then determines the size of the original according to the combination of the data.

Metric Area

		FD1	FD2		FD3		CD1		CD2
Original Size	**Size Determined by UN2**	LED 2	LED 1	LED 2	LED 1	LED 2	LED 1	LED 2	LED 1
A3L	A3L (A3L)	○	○	○	○(○)	○(●)	○	○	○(○)
B4L	B4L (B4L)	○	○	○	○(○)	○(●)	●	○	●(●)
A4L	A4L (A4L)	○	○	○	●(●)	●(●)	●	●	●(●)
A5L	A5L (A5L)	○	●	●	●(●)	●(●)	●	●	●(●)
A4C	A4C (A4C)	○	●	●	●(●)	●(●)	○	○	○(○)
Letter L: 8-1/2” × 11”	Letter L (Letter L)	○	○	●	●(●)	●(●)	●	●	●(●)
11” × 17”	11” × 17” (A3L)	○	○	○	○(○)	○(●)	○	○	●(○)
Legal: 8-1/2” × 14”	Legal (A4L)	○	○	○	○(●)	○(●)	●	●	●(●)
FLS: 8-1/2” × 13”	FLS (A4L)	○	○	○	○(●)	●(●)	●	●	●(●)
Letter C: 11” × 8-1/2”	Letter C (A4C)	○	●	●	●(●)	●(●)	○	○	●(○)
No Original	No Original	●	●	●	●(●)	●(●)	●	●	●(●)

Inch Area

		FD1	FD2		FD3		CD1	
Original Size	**Size Determined by UN2**	LED2	LED1	LED2	LED1	LED2	LED1	LED2
11” × 17”	11” × 17” (11” × 17”)	○(○)	○	○	○(○)	○(○)	○	○
Legal: 8-1/2” × 14”	Legal (Legal)	○(○)	○	○	○(○)	○(○)	●	●
Letter L: 8-1/2” × 11”	Letter L (Letter L)	○(○)	○	●	●(●)	●(●)	●	●
Letter C: 11” × 8-1/2”	Letter C (Letter C)	○(○)	●	●	●(●)	●(●)	○	○
FLS: 8-1/2” × 13”	FLS (Legal)	○(○)	○	○	○(○)	●(○)	●	●
Invoice: 5-1/2” × 8-1/2”	Invoice (No Original)	○(●)	●	●	●(●)	●(●)	●	●
No Original	No Original	●(●)	●	●	●(●)	●(●)	●	●

*○: Original Present ●: Original Not Present

*If no optional sensors are mounted, data is processed as indicated in ( ) and the original sizes determined by UN3 are as indicated in ( ).

*UN3 does not use the data provided by LED1 of Original Size Detecting Sensor FD1 (UN4) and LED2 of CD2 (UN8) for the determination of the original size.

*Any non-standard size is rounded off to the nearest standard size.

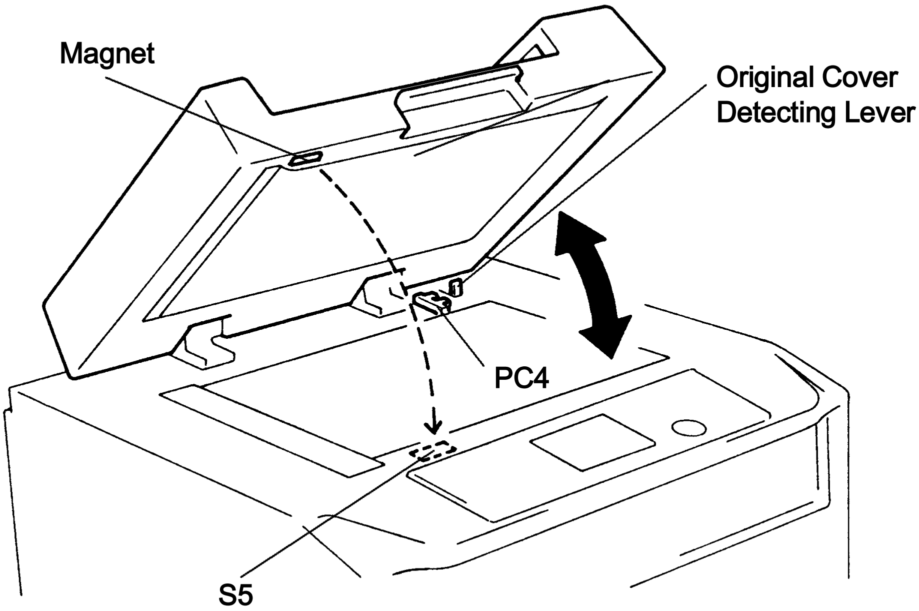
1161SBM1104A

11-4. Original Size Detection Timing

Master CPU on PWB-A affirms and resets the readings of the original size at the following timings.

- Takes size readings: When the ADF is raised to an angle of 15° or more (PC4 is deactivated).
- Affirms size readings*: When the ADF is lowered to an angle of 15° or less (PC4 is just activated); or, when the Start key is pressed with PC4 in the deactivated state.
- Resets size readings: When the ADF is raised (S5 is deactuated).

*When we say "affirms size readings," we mean that the master CPU temporarily fixes the original size without updating the size data consecutively fed by Original Size Detecting Board UN3. It finally selects the paper source and zoom ratio to make good copies of the original size when S5 is turned ON.



1075M044AA

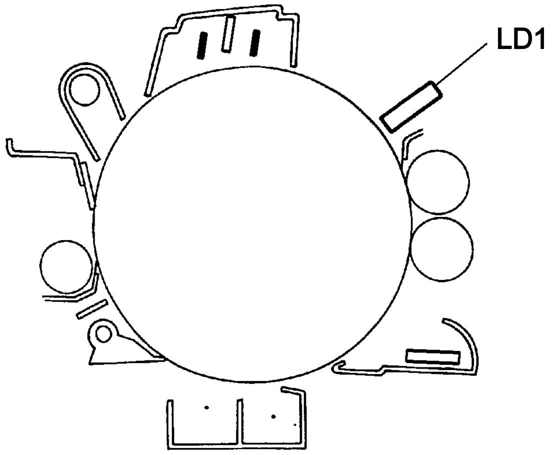
	Control Signal	Blocked	Unblocked	WIRING DIAGRAM
PC4	PJ7A-5A	L	H	41-C

	Control Signal	ON	OFF	WIRING DIAGRAM
S5	PJ22A-9B	L	H	41-A

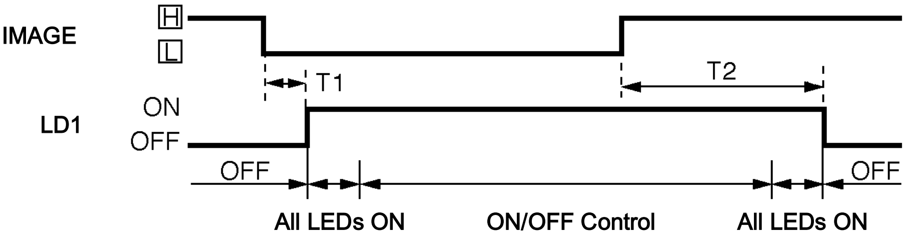
1161SBM1200A

12 IMAGE ERASE LAMP

- Any areas of charge which are not to be developed along the leading, trailing, front, and rear edges are neutralized by lighting up Image Erase Lamp LD1. This effectively prevents non-image areas from being dirtied and economizes on toner consumption. The lamp also functions to erase the leading and trailing edges, and the areas defined in the File Margin and Edge/Frame Erase mode, of the electrostatic latent image on the surface of the PC Drum.
- LD1 consists of 64 LEDs arranged at 5-mm pitch in a row. Different LEDs are turned ON at different timings depending on the size of the paper to be fed, zoom ratio, and mode (Margin, Erase).



1161M040AA



T1 : 67msec. (EP6001)
44msec. (EP8015)

T2 : 217msec. (EP6001)
194msec. (EP8015)

1161T19MCA

	Control Signal	ON	OFF	WIRING DIAGRAM
LD1	PJ4A-1A~6A	Dynamic ON/OFF Control		15-C

1161SBM1201A

12-1 Control for Each Erase Function

= Leading Edge Erase =

- The image along the leading edge of the electrostatic latent image on the surface of the PC Drum is erased by turning ON all LEDs of Image Erase Lamp LD1. This prevents a black streak which would otherwise be produced by the shadow of the Original Width Scale. At the same time, it helps the leading edge of the paper to be easily separated from the Fusing Rollers.

- All LD1 LEDs are kept ON for a given period of time after Scanner Control Processor Board UN2 has output an IMAGE signal. The leading edge erase is then switched to edge erase. The leading edge erase time varies depending on the zoom ratio, mode (File Margin, Edge/Frame Erase), and whether “Leading Edge Erase” of Tech. Rep. Choice is set to “Yes” or “No.”

= Trailing Edge Erase =

- The image along the trailing edge of the electrostatic latent image on the surface of the PC Drum is erased by turning ON all LD1 LEDs. This prevents the Fusing Rollers from being dirtied by excess toner and offset from occurring as the trailing edge of the paper is fused.

- The timing at which the trailing edge erase is switched from edge erase varies depending on the mode (File Margin, Edge/Frame Erase) and whether “Trailing Edge Erase” of Tech. Rep. Choice is set to “Yes” or “No,” with reference to the IMAGE signal output from UN2.

= Edge Erase =

- The 64 LEDs are turned ON and OFF as necessary to erase unnecessary charges along both the front and rear edges of the image as well as those deposited in a reduction mode. This economizes on toner consumption and prevents black streaks from occurring on the copy.

- Which LEDs are turned ON for edge erase depends on the copy paper size and zoom ratio setting. In the full size and enlargement mode, it depends on the copy paper size, while in a reduction mode, it depends on the zoom ratio and copy paper size.

- Since the copy paper is fed through the center of the copier in this copier, LEDs are turned ON as detailed below for different copy paper sizes. We call the table LED ON Pattern A which is used to control edge erase in the full size and enlargement mode. Edge erase is also provided for multi bypass copying in which this copier detects the paper size (in the crosswise direction only).

LED ON Pattern A (For Metric Area)

L1: Frontmost LED; L64: Rearmost LED; O: ON; X: OFF; L appended to paper size: Lengthwise (L25 to L40 are OFF)

Paper Size	**LEDs**					
	L 1~L 8	L 9~L 16	L 17~L 24	L 41~L 48	L 49~L 56	L 57~L 64
A6L	OOOOOOOO	OOOOOOOO	OOOOOXXX	XXXOOOOO	OOOOOOOO	OOOOOOOO
B6L	OOOOOOOO	OOOOOOOO	OOXXXXXX	XXXXXXOO	OOOOOOOO	OOOOOOOO
A5L	OOOOOOOO	OOOOOOOO	XXXXXXXX	XXXXXXXX	OOOOOOOO	OOOOOOOO
B5L	OOOOOOOO	OOOOOXXX	XXXXXXXX	XXXXXXXX	XXXOOOOO	OOOOOOOO
A4L	OOOOOOOO	OOXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXOO	OOOOOOOO
B4L	OOOOOOXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXOOOOOO
A3L	OOXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXO

LED ON Pattern A (For Inch Area)

L1: Frontmost LED; L64: Rearmost LED; O: ON; X: OFF; L appended to paper size: Lengthwise (L25 to L40 are OFF)

Paper Size	**LEDs**					
	L 1~L 8	L 9~L 16	L 17~L 24	L 41~L 48	L 49~L 56	L 57~L 64
5-1/2” × 8-1/2”L	OOOOOOOO	OOOOOOOO	OXXXXXXX	XXXXXXXX	XXXOOOOO	OOOOOOOO
8-1/2 × 11”L	OOOOOOOO	OOXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXO	OOOOOOOO
10” × 14”L	OOOOOOXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXOOOOO
11” × 17”L	OOOOXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXOOO

- In this copier, the original is aligned with a corner for registration, while the copy paper is fed through the center of the copier. Because of that, the reference position of the image on the surface of the PC Drum varies according to the copy paper size. This defies a single LED ON pattern for the reduction mode, as was used conventionally. (Different LEDs are turned ON in the reduction mode according to the copy paper size.) If, however, a particular LED ON pattern is established for each reduction ratio and each paper size, it requires a much larger storage capacity and processing time than used in the conventional copiers. An LED ON pattern for varying reduction ratios is therefore established only with the paper size whose crosswise length is the maximum (A3 lengthwise = 297 mm). This pattern is called LED ON Pattern B shown on the next page. For other paper sizes, a particular reduction ratio is converted to that in the maximum paper size and the reduction ratio found is applied to LED ON Pattern B to find which LEDs are ON. This saves the storage space and processing time.

- The following formula is used to convert the actual reduction ratio to a ratio for the maximum paper size.

$M_{NEW} = M + (PS_{MAX} - PS) / (2 \times PS_{MAX})$

M_{NEW} : Conversion ratio   M: Actual reduction ratio
PS_{MAX} : Maximum paper size (A3 lengthwise = 297 mm)
PS : Paper size to be used

- Edge erase in the reduction mode is controlled by the logical sum of the following: the LED ON data obtained by applying the ratio found through the above formula to LED ON Pattern B and the LED ON data obtained by applying the copy paper size to LED ON Pattern A.

Example : Copy paper size: A4 lengthwise, reduction ratio: 0.500

① When the variables are applied to the above formula:

$$\begin{aligned} M_{NEW} &= 0.500 + (297 - 210) / 2 \times 297 \\ &= 0.646 \end{aligned}$$

② When 0.646 is applied to LED ON Pattern B:
We know that L42 to L64 are ON.

③ When A4 lengthwise is applied to LED ON Pattern A:
We know that L1 to L10 and L55 to L64 are ON.

The logical sum of ② and ③ is that L1 to L10 and L42 to L64 are ON.

LED ON Pattern B

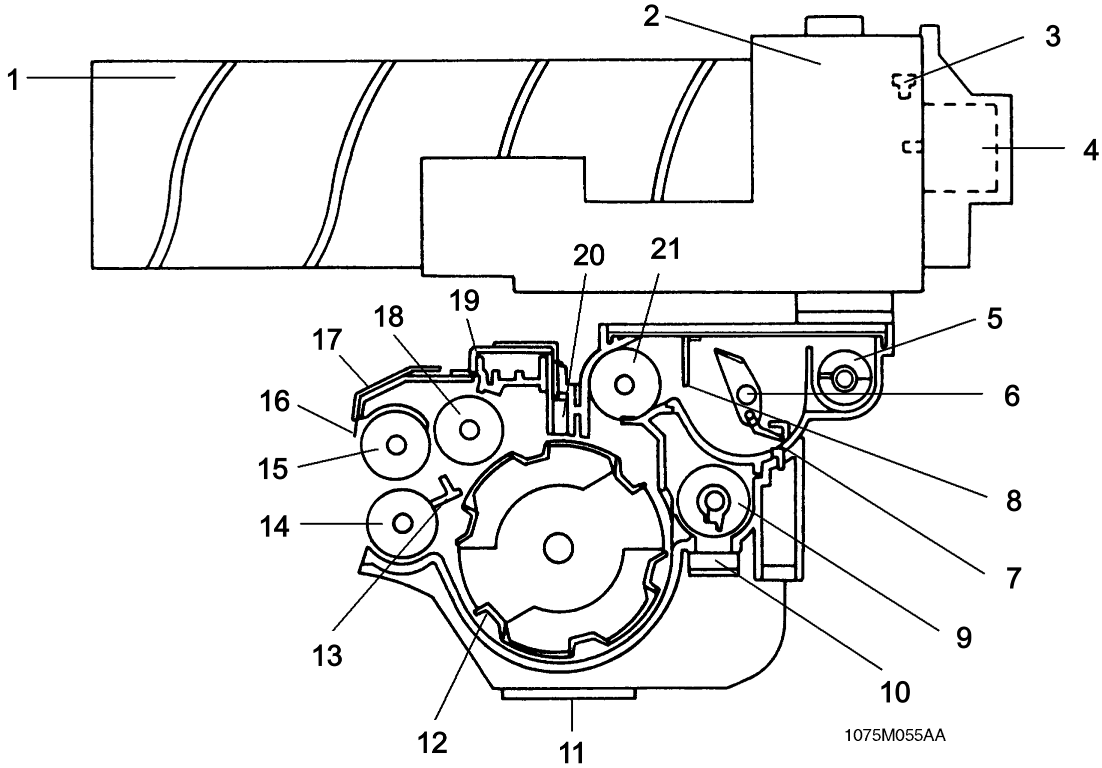
O: ON; X: OFF (L1 to L32 are OFF)

Zoom Ratio		**LEDs**			
Inch Area	Metric Area	L33 to L40	L41 to L48	L49 to L56	L57 to L64
To 0.507	To 0.511	oooooooo	oooooooo	oooooooo	oooooooo
0.508 to 0.523	0.512 to 0.527	xooooooo	oooooooo	oooooooo	oooooooo
0.524 to 0.539	0.528 to 0.543	xxoooooo	oooooooo	oooooooo	oooooooo
0.540 to 0.555	0.544 to 0.559	xxxooooo	oooooooo	oooooooo	oooooooo
0.556 to0.572	0.560 to 0.576	xxxxoooo	oooooooo	oooooooo	oooooooo
0.573 to 0.588	0.577 to 0.592	xxxxxooo	oooooooo	oooooooo	oooooooo
0.589 to 0.604	0.593 to 0.608	xxxxxxoo	oooooooo	oooooooo	oooooooo
0.605 to 0.620	0.609 to 0.624	xxxxxxxo	oooooooo	oooooooo	oooooooo
0.621 to 0.637	0.625 to 0.641	xxxxxxxx	oooooooo	oooooooo	oooooooo
0.638 to 0.653	0.642 to 0.656	xxxxxxxx	xooooooo	oooooooo	oooooooo
0.654 to 0.669	0.657 to 0.673	xxxxxxxx	xxoooooo	oooooooo	oooooooo
0.670 to 0.686	0.674 to 0.689	xxxxxxxx	xxxooooo	oooooooo	oooooooo
0.687 to 0.702	0.690 to 0.706	xxxxxxxx	xxxxoooo	oooooooo	oooooooo
0.703 to 0.718	0.707 to 0.722	xxxxxxxx	xxxxxooo	oooooooo	oooooooo
0.719 to 0.734	0.723 to 0.738	xxxxxxxx	xxxxxxoo	oooooooo	oooooooo
0.735 to 0.751	0.739 to 0.754	xxxxxxxx	xxxxxxxo	oooooooo	oooooooo
0.752 to 0.767	0.755 to 0.771	xxxxxxxx	xxxxxxxx	oooooooo	oooooooo
0.768 to 0.786	0.772 to 0.787	xxxxxxxx	xxxxxxxx	xooooooo	oooooooo
0.787 to 0.799	0.788 to 0.803	xxxxxxxx	xxxxxxxx	xxoooooo	oooooooo
0.800 to 0.816	0.804 to 0.820	xxxxxxxx	xxxxxxxx	xxxooooo	oooooooo
0.817 to 0.832	0.821 to 0.836	xxxxxxxx	xxxxxxxx	xxxxoooo	oooooooo
0.833 to 0.848	0.837 to 0.852	xxxxxxxx	xxxxxxxx	xxxxxooo	oooooooo
0.849 to 0.864	0.853 to 0.868	xxxxxxxx	xxxxxxxx	xxxxxxoo	oooooooo
0.865 to 0.881	0.869 to 0.885	xxxxxxxx	xxxxxxxx	xxxxxxxo	oooooooo
0.882 to 0.897	0.886 to 0.901	xxxxxxxx	xxxxxxxx	xxxxxxxx	oooooooo
0.898 to 0.913	0.902 to 0.917	xxxxxxxx	xxxxxxxx	xxxxxxxx	xooooooo
0.914 to 0.929	0.918 to 0.933	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxoooooo
0.930 to 0.946	0.934 to 0.950	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxooooo
0.947 to 0.962	0.951 to 0.966	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxoooo
0.963 to 0.978	0.967 to 0.982	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxooo
0.979 to 0.994	0.983 to 0.998	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxoo
0.995 to	0.999 to	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxo

1161SBM1300A

13 DEVELOPING UNIT

- This copier employs the New Micro-Toning developing system equipped with three Sleeve/Magnet Rollers.
- The toner fed up to the Toner Replenishing Sleeve/Magnet Roller is supplied to the turning 1st and 2nd Sleeve/Magnet Rollers. From there, it is supplied to the electrostatic latent image on the surface of the PC Drum to form a visible, developed toner image of the original.



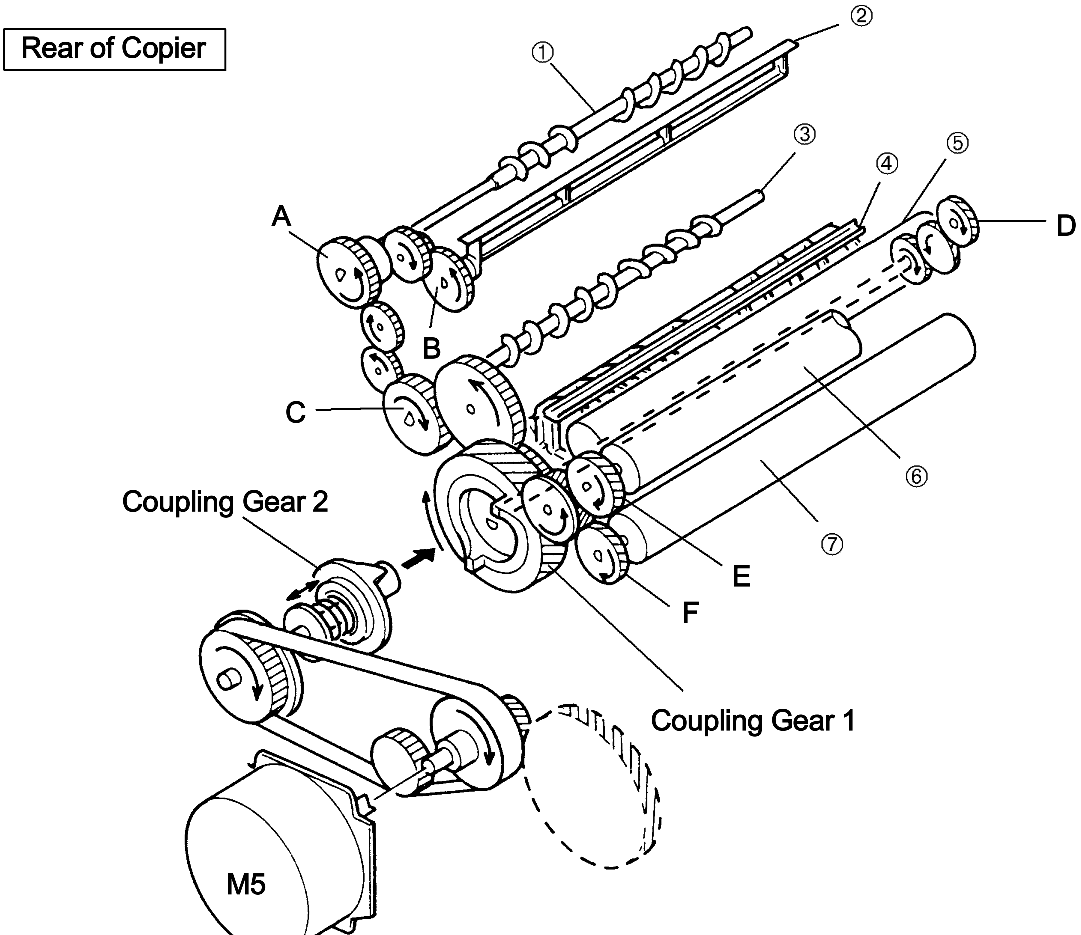
1	Toner Bottle
2	Toner Bottle Holder
3	Toner Bottle Home Position Sensor PC30
4	Main Hopper Toner Replenishing Motor M14
5	Sub Hopper Toner Conveying Screw
6	Sub Hopper Toner Agitating Lever
7	Sub Hopper Toner Empty Switch S6
8	Toner Regulator
9	Developer Conveying/Agitating Screw
10	ATDC Sensor
11	Developing Unit Dehumidifying Heater H5 (on PC Frame)
12	Bucket Roller
13	Developer Regulator
14	2nd Sleeve/Magnet Roller
15	1st Sleeve/Magnet Roller
16	Developer Scattering Prevention Mylar
17	Developer Scattering Prevention Plate
18	Toner Replenishing Sleeve/Magnet Roller
19	Doctor Blade
20	Magnet Sheet
21	Sub Hopper Toner Replenishing Roller

1161SBM1301A

13-1. Developing Unit Drive Mechanism

- Drive for the Developing Unit comes from PC Drum Drive Motor M5.
- Coupling Gear 2 is spring-loaded. If the protruding part of Coupling Gear 1 makes contact with that of Coupling Gear 2 when the PC Unit is slid into the copier, spring-loaded Coupling Gear 2 is pushed back toward the rear of the copier allowing the PC Unit to be slid into position. When drive is later transmitted to the Developing Unit, Coupling Gear 2 is pushed to the front by the tension of the spring to mesh positively with Coupling Gear 1.
- The following parts are driven by M5. Given in ( ) are the drive gears keyed to the illustration.

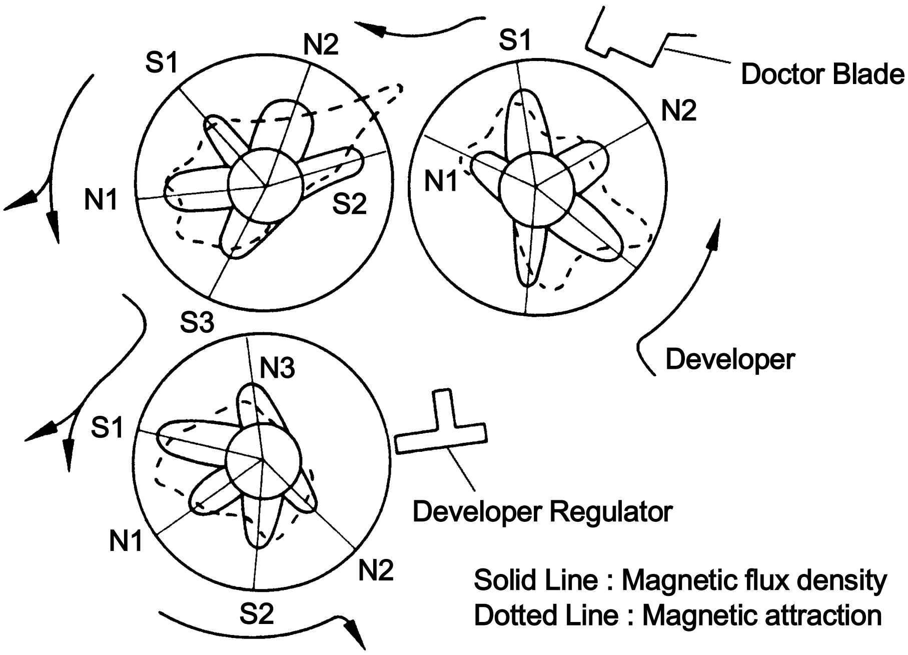
  Sub Hopper Toner Conveying Screw ① (A)
  Sub Hopper Toner Agitating Lever ② (B)
  Developer Conveying/Agitating Screw ③ (C)
  Bucket Roller ④ (Coupling Gear 1)
  Toner Replenishing Sleeve/Magnet Roller ⑤ (D)
  1st and 2nd Sleeve/Magnet Roller ⑥, ⑦ (E, F)



1161SBM1302A

13-2. Magnetic Pole Positioning

- Each Magnet Roller of the Toner Replenishing, 1st, and 2nd Sleeve/Magnet Rollers is made up of five magnets asymmetrically packed.
- The Bias Plate at the front of the Developing Unit ensures that the angle of principal magnetic pole N1 of the 1st Sleeve/Magnet Roller and that of principal magnetic pole S1 of the 2nd Sleeve/Magnet Roller will not be changed with respect to the center of the PC Drum.
- The torsion springs at the front and rear ends of the Developing Unit press the Ds Positioning Collars of the 1st and 2nd Sleeve/Magnet Rollers tightly against the PC Drum, thus keeping constant the distance between each Sleeve/Magnet Roller and the PC Drum.


S1
N2
N1
S2
S1
N2
N1
Doctor Blade
Developer
S3
N3
S1
N1
N2
S2
Developer Regulator
Solid Line : Magnetic flux density
Dotted Line : Magnetic attraction

1075M058AA

<Toner Replenishing Sleeve/Magnet Roller>

N3, S2 : The developer fed by the Bucket Roller is attracted onto the surface of the Sleeve Roller.

N2 : The developer brush is formed by this pole. The height of the brush is moderate before the brush is regulated by the Doctor Blade.

S1 : This pole functions to hold the developer brush firmly onto the surface of the Sleeve Roller as it is fed onto the point of supply to the 1st Sleeve/Magnet Roller.

N1 : The developer brush is formed so that the developer attracted onto the Toner Replenishing Sleeve/Magnet Roller is efficiently transferred onto the 1st Sleeve/Magnet Roller.

<1st Sleeve/Magnet Roller>

S2 : The developer fed by the Toner Replenishing Sleeve/Magnet Roller is positively attracted onto the surface of the Sleeve Roller.

N2, S1 : Two poles are provided between the relatively wide gap between S2 and N1.

N1 : This is the principal magnetic pole and its lines of magnetic flux at the point of development are perpendicular to the surface of the PC Drum. Therefore, when toner is attracted to the latent image, the carrier is firmly held onto the Sleeve Roller.

S3 : The developer brush is formed so that the developer attracted onto the 1st Sleeve/Magnet Roller and not used for development is efficiently transferred onto the 2nd Sleeve/Magnet Roller.

<2nd Sleeve/Magnet Roller>

N3 : The developer fed by the 1st Sleeve/Magnet Roller is positively attracted onto the surface of the Sleeve Roller.

S1 : This is the principal magnetic pole and its lines of magnetic flux at the point of development are perpendicular to the surface of the PC Drum.

S1-N1 : A strong magnetic force is provided between these two poles to ensure that the carrier is firmly held onto the Sleeve Roller.

S2-N2 : The magnetic flux density between these two poles is made low to ensure that the developer remaining on the Sleeve Roller is smoothly recycled to the Developer Mixing Chamber. The developer which has fallen off the Sleeve Roller is mixed together with fresh toner in the Developer Mixing Chamber.

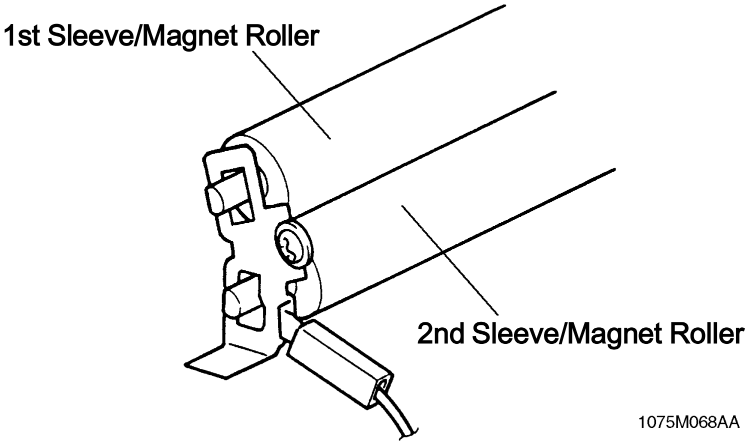
N2-N3 : The interval between these two poles is wide and there is the Developer Regulator installed between them. This prevents the developer remaining on the Sleeve Roller from being fed back to the PC Drum.

1161SBM1303A

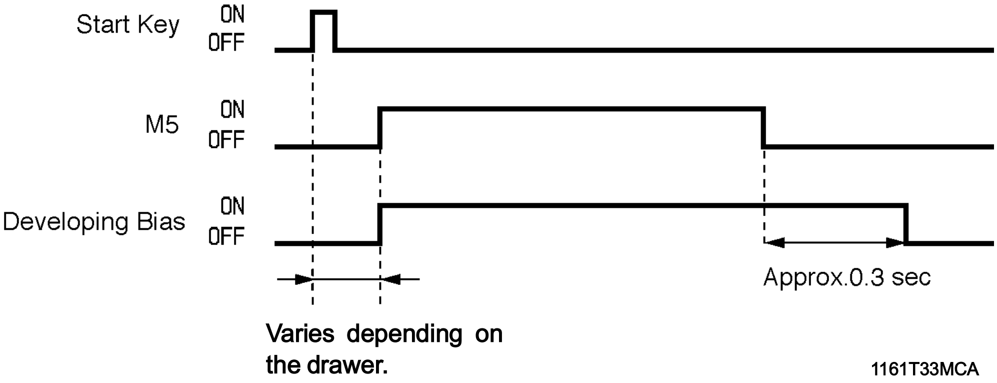
13-3. Developing Bias

A negative voltage (Vb = Developing Bias voltage) is applied to the Sleeve Roller to prevent a foggy background on the copy. The amount of toner attracted onto the surface of the PC Drum depends on how much lower the PC Drum surface potential (Vi) is than Vb (i.e., the potential difference).

- When the potential difference is large, a greater amount of toner is attracted.
- When the potential difference is small, a smaller amount of toner is attracted.



1075M068AA



1161T33MCA

	Control Signal	ON	OFF	WIRING DIAGRAM
Developing Bias	PJ6A-3A	L	H	15-E

1161SBM1304A

13-4. ATDC Sensor

The copier compares the toner-to-carrier ratio (T/C) of the developer in the Developer Mixing Chamber detected by ATDC Sensor UN12 during a copy cycle with the target ratio (4%) and, if it finds a lower ratio than the reference, replenishes the supply of toner. The standard output voltage of the ATDC Sensor for the reference T/C (5%) is 2.5V.

If the toner-to-carrier ratio becomes lower than 2.5% in a toner-empty condition, the copier inhibits the initiation of a new copy cycle (this feature can be enabled or disabled by a Tech. Rep. Choice function). As soon as the toner-empty condition is canceled, the copier permits the initiation of a new copy cycle.

If the Upper Door is opened and closed in the toner-empty condition, the copier initiates an Auxiliary Toner Replenishing sequence. (The toner-empty condition is canceled as soon as the Sub Hopper is loaded with toner and the copier completes the Auxiliary Toner Replenishing sequence when the target level is reached.)

ATDC Sensor Automatic Adjustment

An automatic adjustment of the ATDC Sensor is made in the F8 or FF Test Mode operation.

*When F8 is Run after Starter Has Been Changed:

Following the execution of the Toner agitating mode, upon pressing the Start Key, the copier CPU reads the output value of the ATDC Sensor and adjusts the ATDC Sensor gain so that the output value becomes 2.5V.

NOTE: If an F8 operation is run at a time when the starter has not been changed, it can result in a wrong T/C reference value being set by the copier. Avoid casual use of F8.

If the setting value has been cleared because of the RAM Board being replaced, use the "Level History" function of the Tech. Rep. mode to return the "ATDC Ref. Value" to the original value before the board was replaced.

Controlled Part	Control Signal	T/C Ratio	Standard Output Voltage	WIRING DIAGRAM
UN12	PJ20A-3	6.0(%)	2.5(V)	19-B

<Toner Replenishing Control by ATDC Sensor>

The ATDC Sensor samples T/C for each copy and the copier compares the reading with the reference T/C (which is normally 4% but may be up to 6% depending on the image stabilization control provided), energizing Sub Hopper Toner Replenishing Motor M9 as may be necessary to replenish toner in either of the following four modes.

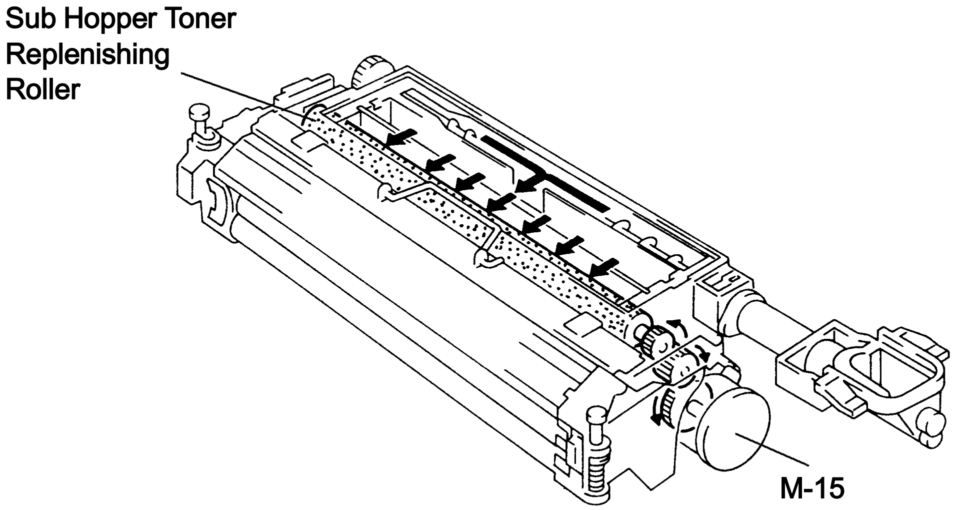
Toner Replenishing Mode	Conditions	Amount Replenished *
Large amount replenishing	The ATDC Sensor reading is lower than target T/C by 0.5% or more.	Approx. 166 mg (EP8015 : 123mg)
Small amount replenishing	The ATDC Sensor reading is lower than target T/C by less than 0.5%.	Approx. 120 mg
Fixed amount replenishing	The ATDC Sensor reading is higher than target T/C by less than 1%.	Approx. 12mg
No toner replenishing	The ATDC Sensor reading is higher than target T/C by 1% or more.	————

* The amount of toner replenished varies according to the paper size (given in the table are figures for A4). The copier is also provided with a function that, if T/C detected during a copy cycle is lower than the reference by 2% or more, interrupts the copy cycle and performs a toner replenishing sequence and, as soon as there is a gain of 1% against the T/C reading, resumes the copy cycle. This function is, however, disabled when a toner-empty condition is detected.

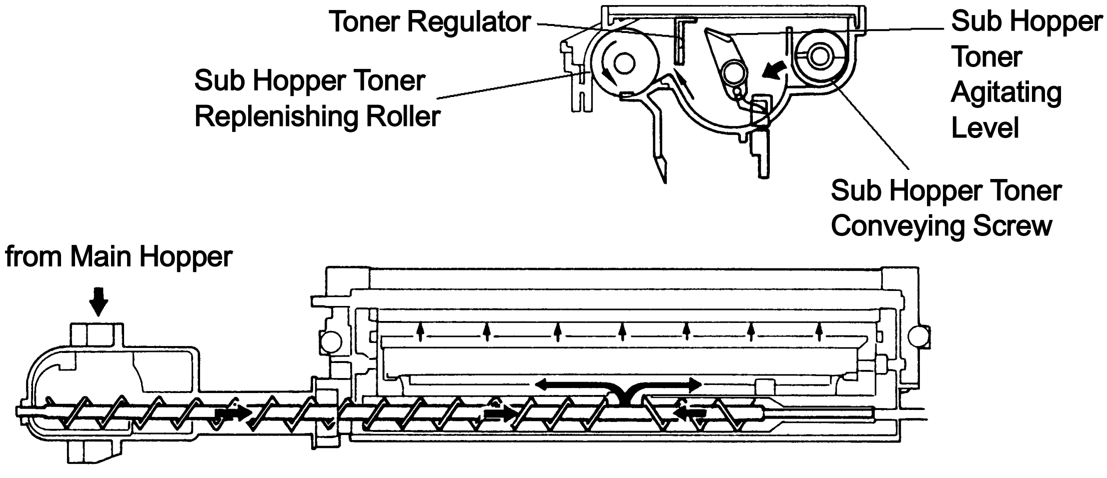
1161SBM1305A

13-5. Sub Hopper Toner Replenishing Mechanism

Sub Hopper Toner Replenishing Motor M15 is energized for the toner replenishing time which is calculated based on the ATDC Sensor output voltage (T/C ratio) and the size of the paper being fed through the copier.


Sub Hopper Toner Replenishing Roller
M-15

1075M133AA


Toner Regulator
Sub Hopper Toner Replenishing Roller
Sub Hopper Toner Agitating Level
Sub Hopper Toner Conveying Screw
from Main Hopper

1075M060AA

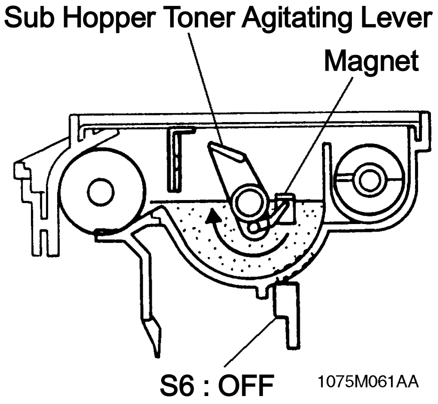
Controlled Part	Control Signal	ON	OFF	WIRING DIAGRAM
M15	PJ4A-8A	L	H	19-F

1161SBM1306A

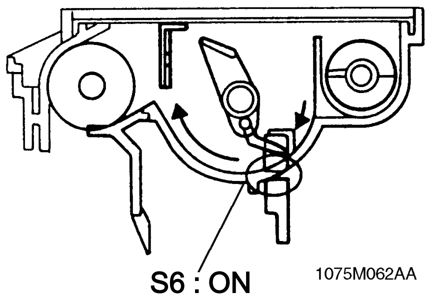
13-6. Sub Hopper Toner Empty Detecting Mechanism

- A toner-empty condition in the Sub Hopper is detected by the magnet that turns at the same time as the Sub Hopper Toner Agitating Lever to actuate and deactuate Sub Hopper Toner Empty Switch S6.
- While the amount of toner in the Sub Hopper is more than the predetermined one, the magnet is pushed upwards by the toner as it first meets the toner during its downward swing. It thereafter turns with a smaller turning radius, leaving a greater distance from S6. S6 therefore remains deactuated.
- When the amount of toner in the Sub Hopper is less than the predetermined one, the magnet turns with a greater turning radius and actuates S6 as it nears S6 during its downward swing. This results in S6 being repeatedly actuated and deactuated. If the S6 ON/OFF pulses are being output throughout the period of time during which the Toner Bottle is turned 16 turns, the copier CPU determines that the Sub Hopper has run out of toner.

= Toner Full =



= Toner Empty =



	Control Signal	ON	OFF	WIRING DIAGRAM
S6	PJ4A-9A	L	H	19-G

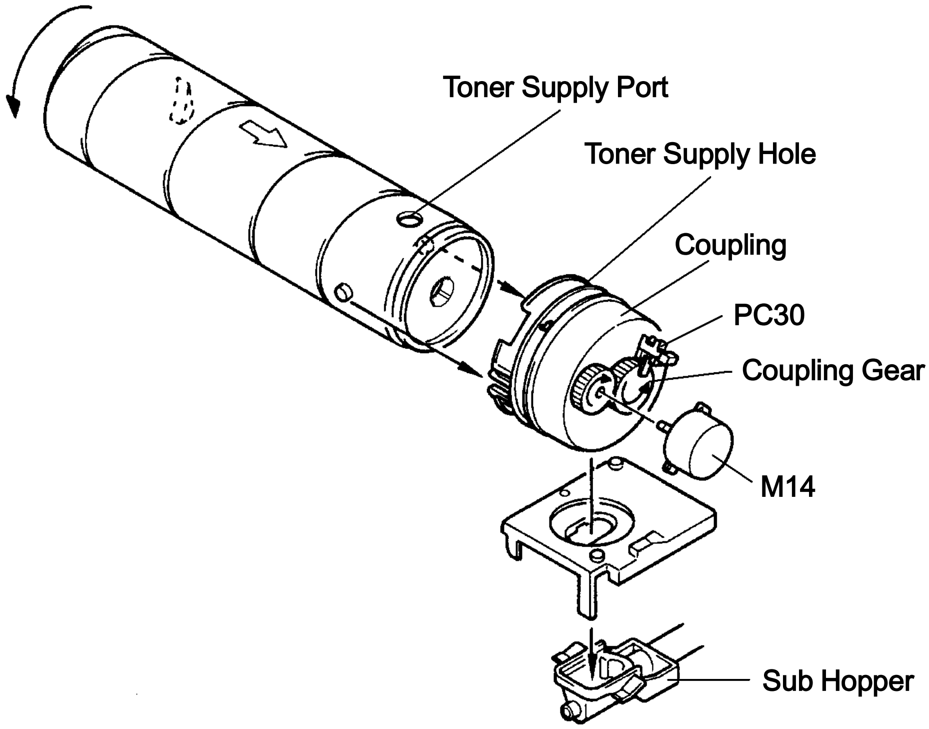
1161SBM1307A

13-7. Main Hopper Toner Replenishing Mechanism

When a toner-empty ON/OFF pulses are detected in the Sub Hopper, Main Hopper Toner

Replenishing Motor M14 is energized to turn the Toner Bottle, thereby supplying toner from the Main Hopper to Sub Hopper.

- The Home Position Detecting Plate fitted to the coupling and Toner Bottle Home Position Sensor PC30 ensure that the Toner Supply Port in the Toner Bottle is positioned at the top whenever the Toner Bottle is stopped.


Toner Supply Port
Toner Supply Hole
Coupling
PC30
Coupling Gear
M14
Sub Hopper

1161M041AA

	Control Signal	ON	OFF	WIRING DIAGRAM
M14	PJ22A-7B	L	H	22-H

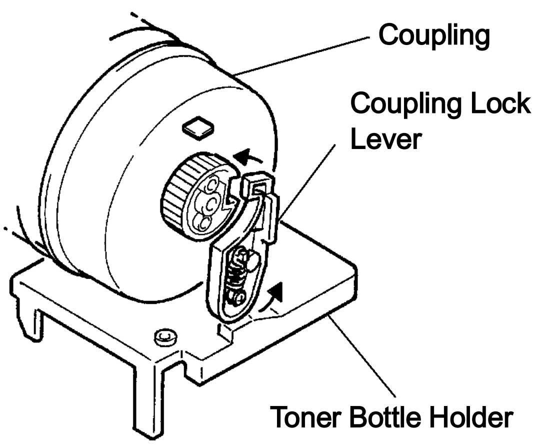
	Control Signal	ON	OFF	WIRING DIAGRAM
PC30	PJ22A-11A	L	H	19-E

1161SBM1308A

13-8. Coupling Locking Mechanism

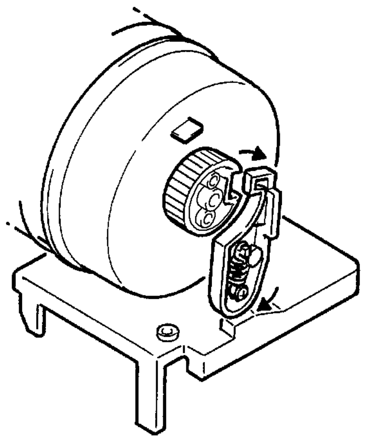
The coupling is locked in position to prevent it from moving when the Toner Bottle is removed or installed. When the Toner Bottle Holder is swung out to the front, the tension of the spring causes the Coupling Lock Lever to hook the coupling. When the holder is swung into position, the bottom of the Coupling Lock Lever is pushed by the protrusion of the holder, disengaging the Coupling Lock Lever from the coupling.

When Toner Bottle Holder is Swung out



1155M040AA

When Toner Bottle Holder is Swung in

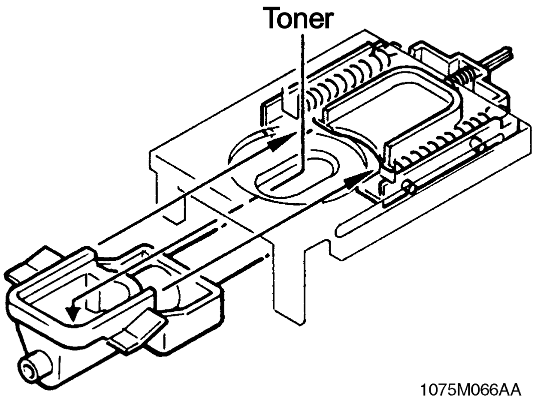


1161M043AA

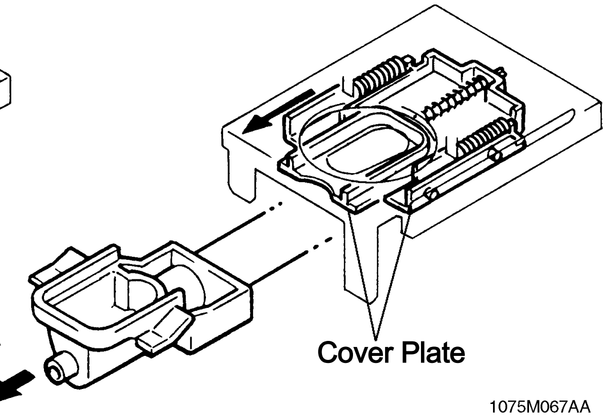
1161SBM1309A

13-9. Toner Supply Hole Covering/Uncovering Mechanism

The Toner Supply Hole in the Toner Bottle Holder is covered to prevent toner from dropping into the inside of the copier when the PC Unit is slid out of the copier. When the PC Unit is in the copier, the Sub Hopper keeps the Toner Supply Hole uncovered. When the PC Unit is slid out of the copier, the tension of the springs slides the Cover Plate to the front, covering the Toner Supply Hole.



1075M066AA



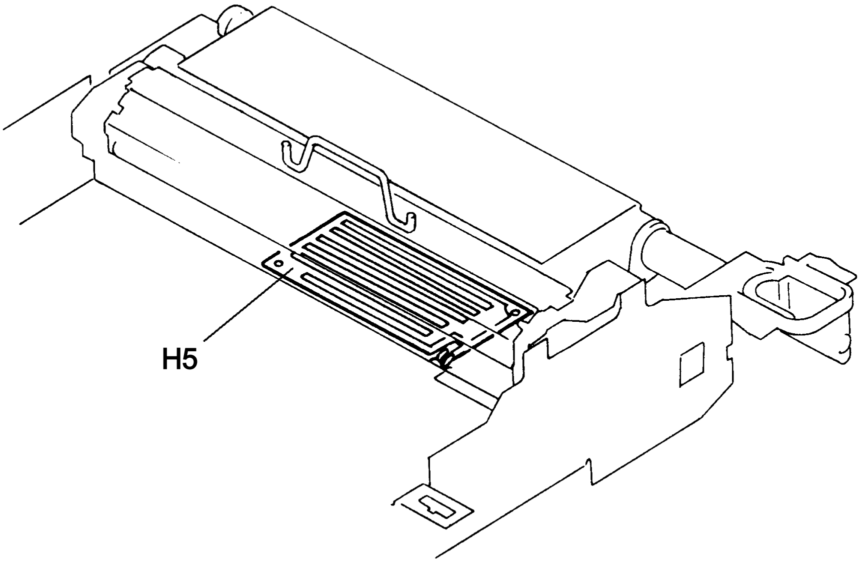
1075M067AA

1161SBM1310A

13-10. Developing Unit Dehumidifying Heater

- Variations in the environmental conditions (temperature and humidity) surrounding the copier could result in toner and carrier being insufficiently charged. Then, the amount of toner attracted onto the surface of the PC Drum decreases, making copy image density unstable. Developing Unit Dehumidifying Heater H5 installed on the underside of the Developing Unit ensures that toner and carrier mixed together in the Developing Unit are sufficiently charged under changing environmental conditions around the Developing Unit.

- H5 is turned ON only when the following two conditions are met:
  1. The power cord is plugged in.
  2. Power Switch S1 is in the OFF position.



1075M069AA

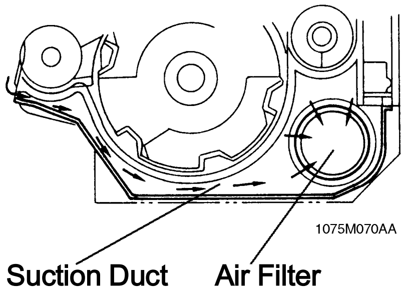
	Control Signal	ON	OFF	WIRING DIAGRAM
H5	PWB-C	DC24V	DC0V	13-M

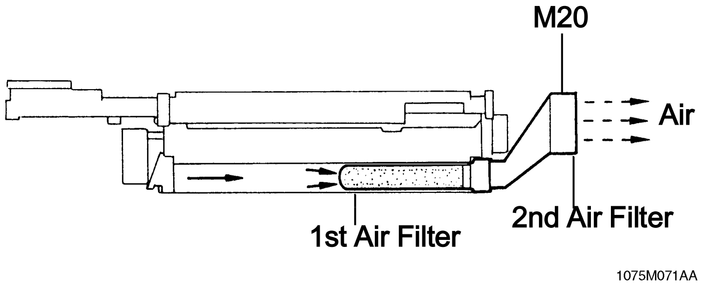
1161SBM1311A

13-11. Toner Suction Fan Motor

- This copier is provided with a Suction Duct under the 2nd Sleeve/Magnet Roller. Toner particles from the Developing Unit are drawn in through the Suction Duct so that they will not fall over the Pre-Image Transfer Guide Plate and Image Transfer/Paper Separator Coronas Unit.
- The toner particles are drawn through the Suction Duct and collected by the Air Filter as the air is drawn out of the copier by Toner Suction Fan Motor M20.

Toner Suction Path


1075M070AA
Suction Duct
Air Filter

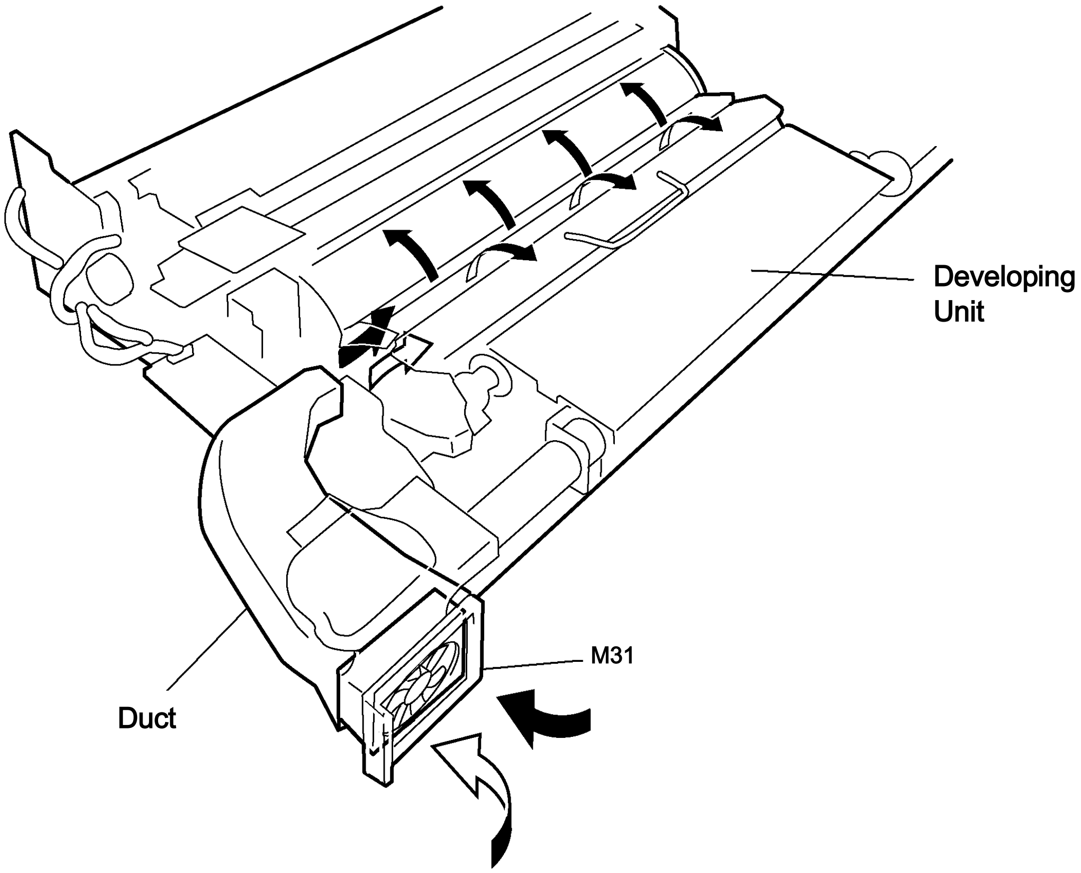

M20
Air
1st Air Filter
2nd Air Filter
1075M071AA

	Control Signal	ON	OFF	WIRING DIAGRAM
M20	PJ6A-7A	L	H	19-C

1161SBM1312A

13-12. Developing Unit Cooling Fan Motor (EP8015 Only)

- In the EP8015 copier, the Developing Unit is driven at high speeds to generate more heat. The copier also accumulates heat during its two-sided copy cycles and lets paper dissipate more heat. All this contributes to a rise in developer temperature, which results in low ID and foggy background. Developing Unit Cooling Fan Motor M31 blows air against the Developing Unit to prevent the developer temperature from running high.
- M31 is energized only in the two-sided copy cycle.



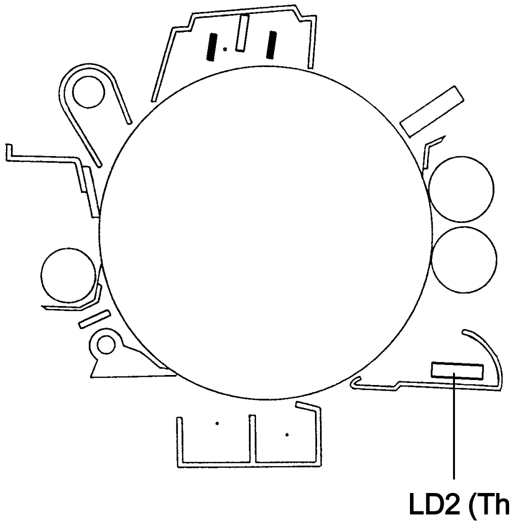
1161M030AA

	Control Signal	ON	OFF	WIRING DIAGRAM
M31	PJ23A-4B	L	H	19-C

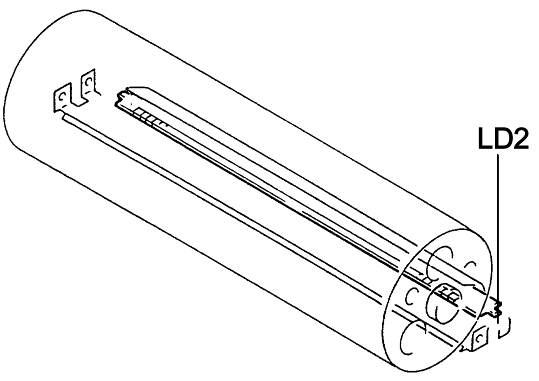
1161SBM1400A

14 PRE-IMAGE TRANSFER ERASE LAMP

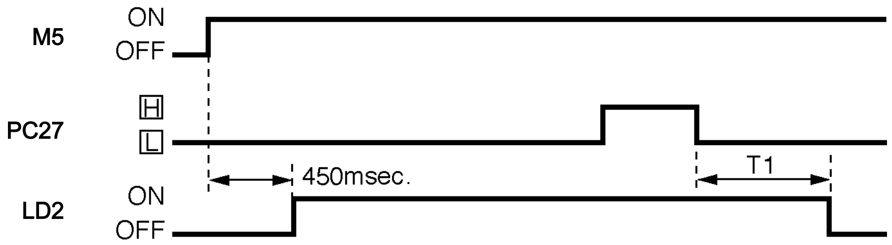
- This copier is equipped with Pre-Image Transfer Erase Lamp LD2 whose light strikes the surface of the PC Drum after development to improve image transfer and paper separation.
  *A cold-cathode tube type Pre-Image Transfer Erase Lamp is also made available as a replacement part for users who use thick paper frequently. (EP8015 only.)



1161M007AB



1161M008AA



T1 : 713msec (EP6001)
468msec (EP8015)

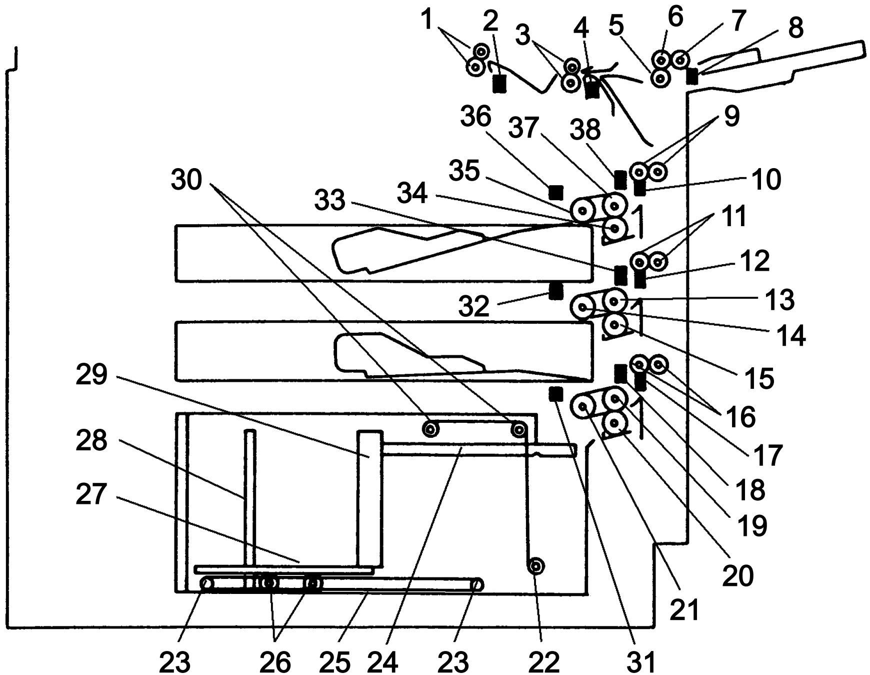
1161T24MCA

	Control Signal	ON	OFF	WIRING DIAGRAM
LD2	DJ23A-8A	L	H	12-J

1161SBM1500A

15 PAPER TAKE-UP/FEED SECTION

Construction

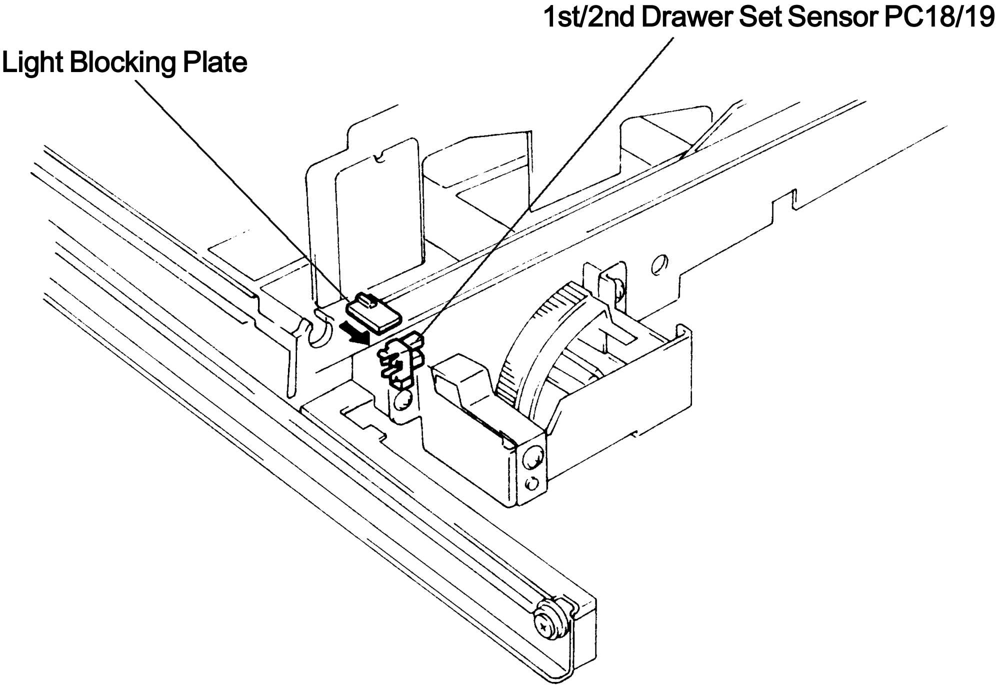


1. Synchronizing Roller
2. Paper Leading Edge Sensor PC27
3. Transport Rollers
4. Transport Roller Sensor PC26
5. Manual Bypass Separator Roll
6. Manual Bypass Feed Roll
7. Manual Bypass Take-Up Roll
8. Manual Feed Paper Empty Sensor PC28
9. Vertical Transport Roller 1
10. Vertical Transport Sensor 1 PC10
11. Vertical Transport Roller 2
12. Vertical Transport Sensor 2 PC11
13. 2nd Drawer Feed Roll
14. 2nd Drawer Paper Take-Up Roll
15. 2nd Drawer Separator Roll
16. Vertical Transport Roller 3
17. Vertical Transport Sensor 3 PC12
18. 3rd Drawer Paper Take-Up Sensor PC8
19. 3rd Drawer Feed Roll
20. 3rd Drawer Separator Roll
21. 3rd Drawer Paper Take-Up Roll
22. Wire Take-Up Pulley
23. Tension Pulley
24. Main Tray
25. Shifter Transport Timing Belt
26. Shifter Transport Roller
27. Shift Tray
28. Shifter
29. Shift Gate
30. Pulley
31. 3rd Drawer Paper Empty Sensor PC24 (at front of copier) 3rd Drawer Lift-Up Sensor PC16 (in rear of copier)
32. 2nd Drawer Paper Empty Sensor PC23 (at front of copier)
    2nd Drawer Lift-Up Sensor PC15 (in rear of copier)
33. 2nd Drawer Paper Take-Up Sensor PC7
34. 1st Drawer Separator Roll
35. 1st Drawer Paper Take-Up Roll
36. 1st Drawer Paper Empty Sensor PC22 (at front of copier) 1st Drawer Lift-Up Sensor PC14 (in rear of copier)
37. 1st Drawer Feed Roll
38. 1st Drawer Paper Take-Up Sensor PC6

1161SBM1501A

15-1. Drawer-in-Position Detection

- When the 1st/2nd Drawer is slid into the copier, the light blocking plate in the rear of the drawer blocks 1st/2nd Drawer Set Sensor PC18/19 (L).
  The copier then knows that the drawer has been slid into position.


1st/2nd Drawer Set Sensor PC18/19
Light Blocking Plate

1075M107AA

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC18	PJ15F-5B	H	L	58-N
PC19	PJ14F-5B	H	L	58-L

1161SBM1502A

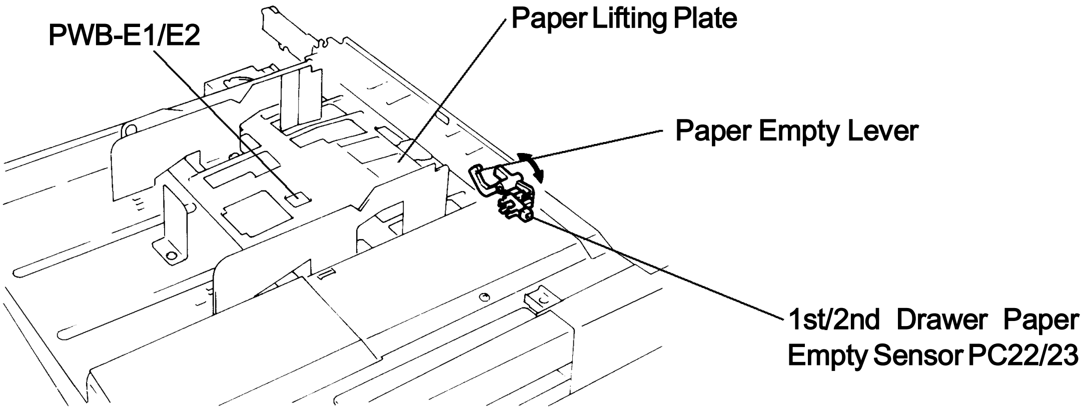
15-2. Paper Empty Detection

(1) Metric Areas

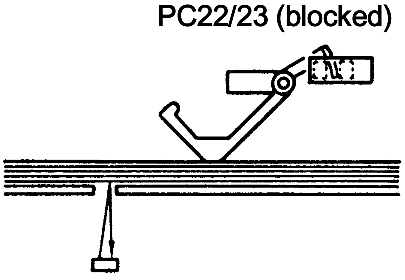
- A paper empty detection in the 1st and 2nd Drawers is detected by 1st Drawer Paper Empty Sensor PC22 and 2nd Drawer Paper Empty Sensor PC23, respectively.

(2) Inch Areas

- A paper empty detection in the 1st and 2nd Drawers is detected by 1st Drawer Paper Empty Sensor PC22 and 2nd Drawer Paper Empty Sensor PC23, and 1st Drawer Paper Empty Board PWB-E1 and 2nd Drawer Paper Empty Board PWB-E2, respectively.
- PC22/23 detects a paper-empty condition at the time of the paper take-up. The copier considers that there is no paper loaded if the sensor is unblocked (H)
- PWB-E1/E2 detects a paper-empty condition when the drawer is slid into the copier. The copier considers that there is no paper loaded if the board is unblocked (H).


PWB-E1/E2
Paper Lifting Plate
Paper Empty Lever
1st/2nd Drawer Paper Empty Sensor PC22/23

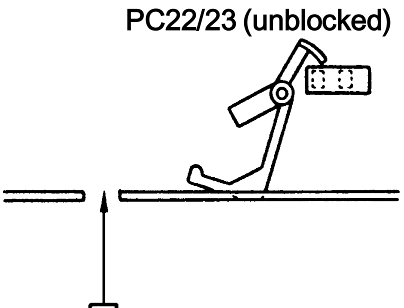
1075M108AA


PC22/23 (blocked)

1075M121CA

Paper Present

The paper stack raises the Paper Empty Lever which blocks (L) PC22/23.


PC22/23 (unblocked)

1075M122CA

Paper not Present

The Paper Empty Lever drops into the cutout in the Paper Lifting Plate and the light blocking plate of the empty lever clears PC22/23 (H).

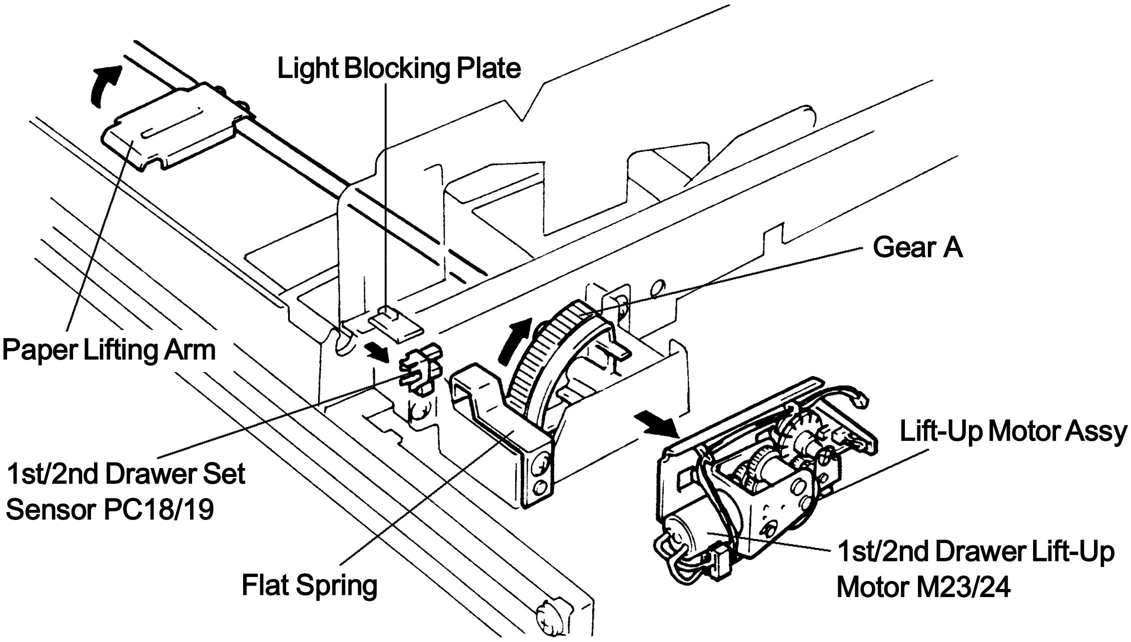
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC22	PJ15F-6B	H	L	58-N
PC23	PJ14F-6B	H	L	58-L
PWB-E1	PJ8A-2A	L	H	51-C
PWB-E2	PJ8A-8A	L	H	51-G

1161SBM1503A

15-3. Paper Lifting/Lowering Mechanism

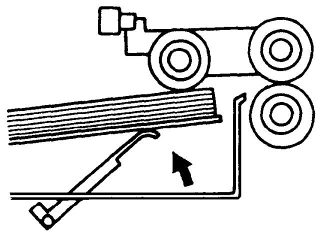
(1) Metric Areas

- When the drawer is slid into the copier, the flat spring at the rear of the drawer raises the Lift-Up Motor Assy and, as a result, Gear A on the Paper Lifting Arm shaft meshes with the Lift-Up Motor Assy gear.
- At this time, 1st/2nd Drawer Set Sensor PC18/19 is blocked ($\boxed{L}$) and, 1 sec. thereafter, 1st/2nd Drawer Lift-Up Motor M23/24 is energized.
- When M23/24 is energized, it turns the Paper Lifting Arm, thus raising the paper stack so it is pressed against the Paper Take-Up Roll.


Light Blocking Plate
Gear A
Paper Lifting Arm
Lift-Up Motor Assy
1st/2nd Drawer Set Sensor PC18/19
1st/2nd Drawer Lift-Up Motor M23/24
Flat Spring

1075M109AA

Paper Stack Lifting



4425M005AA

M23/24 is energized causing the paper stack to be raised. (Paper lifting is started.)

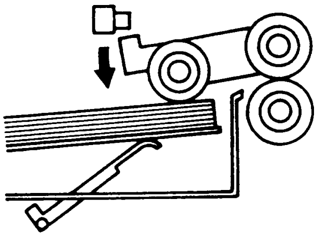
↓

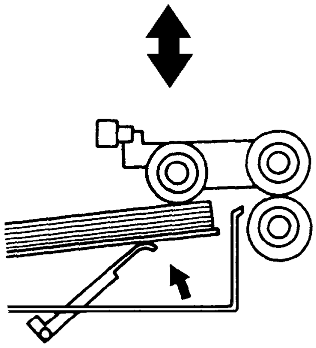
The paper causes the light blocking plate of the Paper Take-Up Roll Assy to block 1st/2nd Drawer Lift-Up Sensor PC14/15 ($\boxed{L}$).

↓

M23/24 is deenergized. (Paper lifting is completed.)

During Copy Cycle


4425M006AA


4425M005AA

Paper is consumed as copies are made.

↓

As the Paper Take-Up Roll lowers, 1st/2nd Drawer Lift-Up Sensor PC14/15 is unblocked (H).

↓

1st/2nd Drawer Lift-Up Motor M23/24 is energized to raise the paper stack, thus blocking PC14/15 (L).

↓

M23/24 is deenergized.

Note: Repeating these operations keeps constant the pressure between the Paper Take-Up Roll and paper regardless of the amount of paper still available for use.

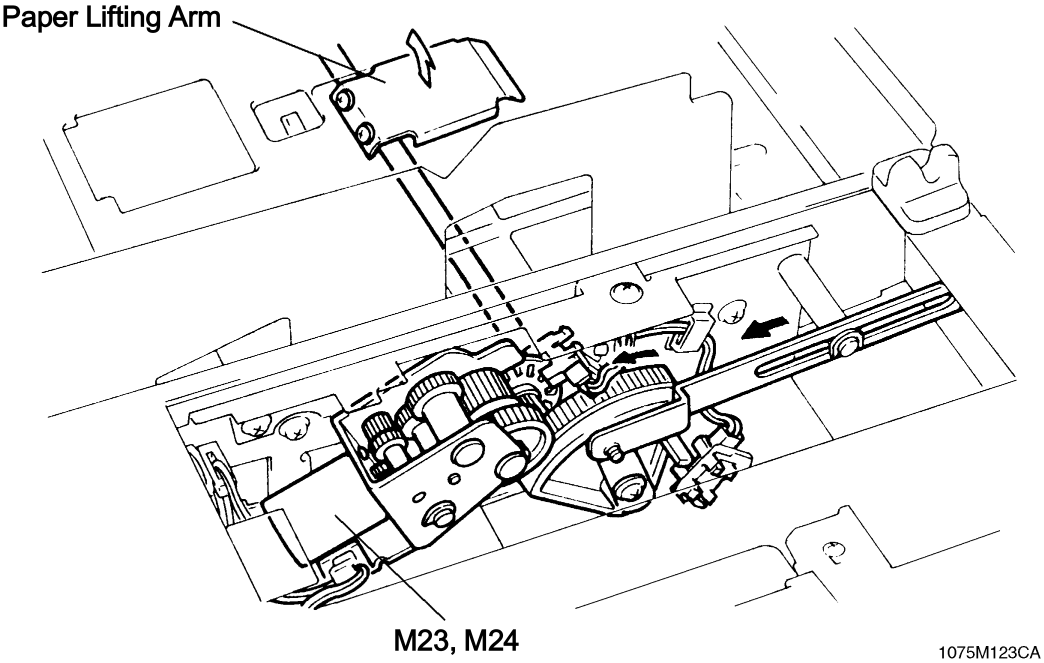
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC14	PJ15F-8A	H	L	55-M
PC15	PJ14F-8A	H	L	55-L

	Control Signal	ON	OFF	WIRING DIAGRAM
M23	PJ4F-1, 2	L	H	48-M
M24	PJ4F-3, 4	L	H	48-N

(2) Inch Areas

- When the drawer is slid into the copier and, if 1st/2nd Drawer Paper Empty Sensor PC22/23 and 1st/2nd Drawer Paper Empty Board PWB-E1/E2 are blocked (L), any of the following operations will energize 1st/2nd Drawer Lift-Up Motor M23/24 to turn forward, thus raising the paper stack.

Press 1st/2nd Drawer Paper Descent Key UN10/11.	Load originals on the Duplexing Document Feeder.
Turn ON Power Switch S1.	Place a paper stack on the Multi Bypass Table.
Open and close a door.	Slide the Sorter away from, and back to, the copier.
Raise and lower the Duplexing Document Feeder.	Press any key on the control panel.



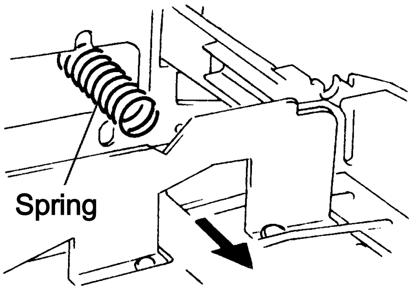
Paper Stack Lifting & **During Copy Cycle**

- See (1) Metric Areas operation.

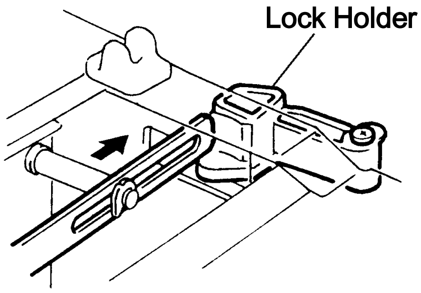
1161SBM1504A

15-4. Paper Stack Lowering/Drawer Locking Mechanism (Inch Areas)

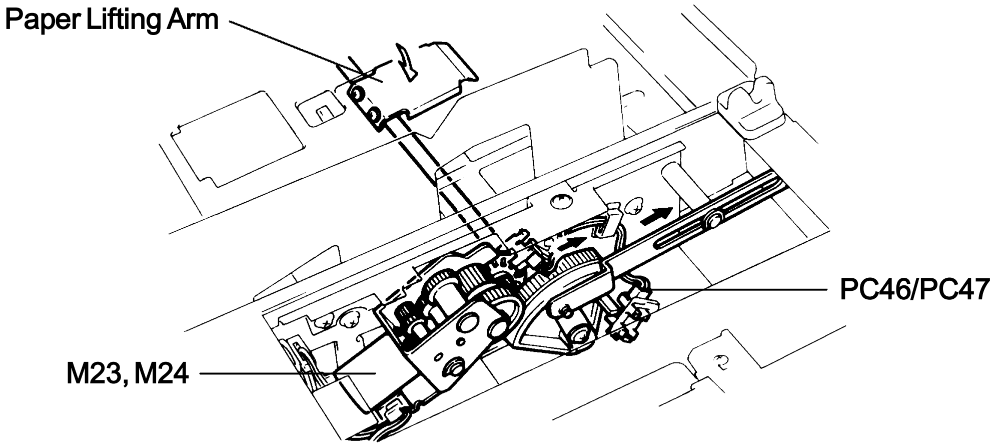
- When the Paper Descent Key (UN9/10) is pressed or the drawer runs out of paper during a copy cycle, the Lift-Up Motor (M23/24) is energized to turn backward to lower the Paper Lifting Plate.
- The Paper Lifting Plate is at its lower limit position when the segment gear mounted on the same shaft as the Paper Lifting Arm blocks 1st/2nd Drawer Lower Limit Position Sensor PC46/47 ($\boxed{L}$).
- When UN9/10 is pressed, M23/24 continues turning backward even after PC46/47 has been blocked and is deenergized when PC46/47 is unblocked ($\boxed{H}$), the blocking plate passing through the sensor. This unlocks the drawer and the drawer is pushed approx. 70 mm out to the front by the spring placed in the rear of the copier.
- After the drawer has been unlocked, M23/24 starts turning forward and is deenergized when PC46/47 is blocked ($\boxed{L}$).
- The drawer is locked in position by the lock holder inside the copier when it is slid all the way into the copier.



1075M126CA



1075M125CA



1075M124CA

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC46	PJ6F-3	H	L	51-B
PC47	PJ6F-8	H	L	51-E

1161SBM1505A

15-5. Paper Level Detection

- The amount of paper still available for use, or the paper level, of the 1st and 2nd Drawer is detected by 1st/2nd Drawer Lift-Up Motor Pulse Sensor PC51/52 and a pulse disk.
- The pulse disk is mounted on the shaft of the intermediary gear that transmits drive from the Lift-Up Motor (M23/24). The speed of M23/24 is known by counting the number of pulses using PC56/57.

When Drawer is Slid in

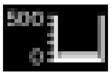
Counting of the number of pulses is started when M23/24 is energized (to turn forward) and continues until PC51/52 is blocked (🄻). The total number of pulses is translated into the amount of paper which is shown on the Touch Panel as a graphic marker in units of 50 sheets of paper.

During Copy Cycle

As the paper is consumed and the top level of the paper stack lowers, M23/24 is energized (to turn forward) to raise the paper stack. During this time, PC51/52 detects pulses and that pulse count is accumulated. When the count reaches 50 sheets of paper, one segment of the paper level indicator on the Touch Panel goes out.

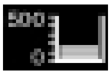
*Paper Level Indicator

- 1 to 50 sheets



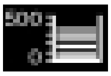
1134M058AA

- 50 to 200 sheets



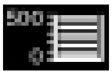
1134M059AA

- 200 to 350 sheets



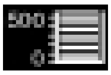
1134M060AA

- 350 to 500 sheets



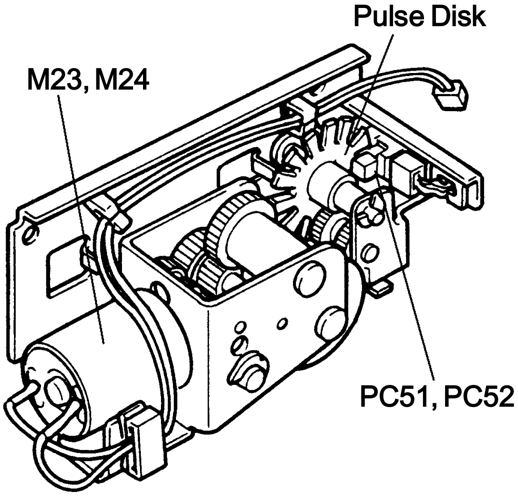
1134M061AA

- 500 sheets up



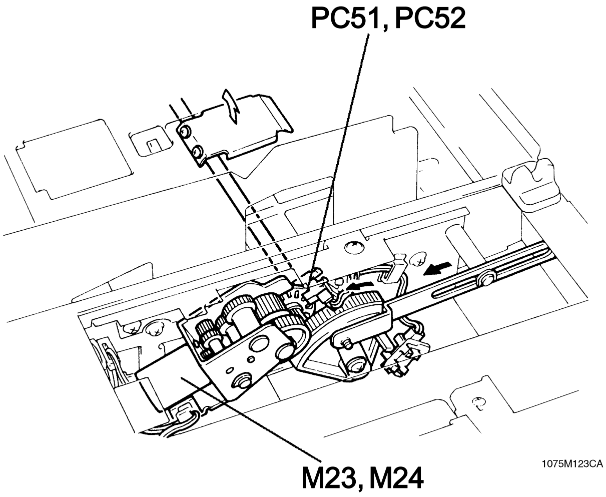
1134M062AA

Metric Area



1075M110AA

Inch Area



1075M123CA

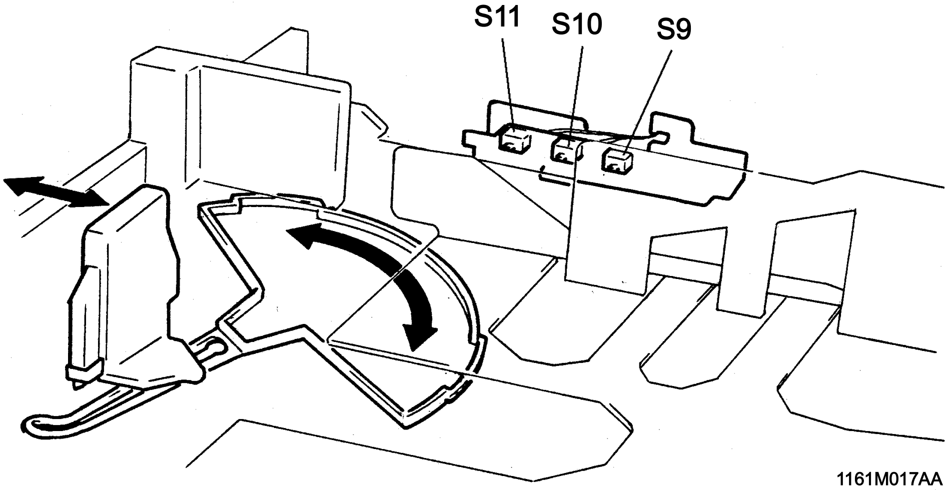
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC51	PJ11A-2	H	L	55-B
PC52	PJ11A-5	H	L	55-C

1161SBM1506A

15-6. Universal Tray (2nd Drawer) Paper Size Detection

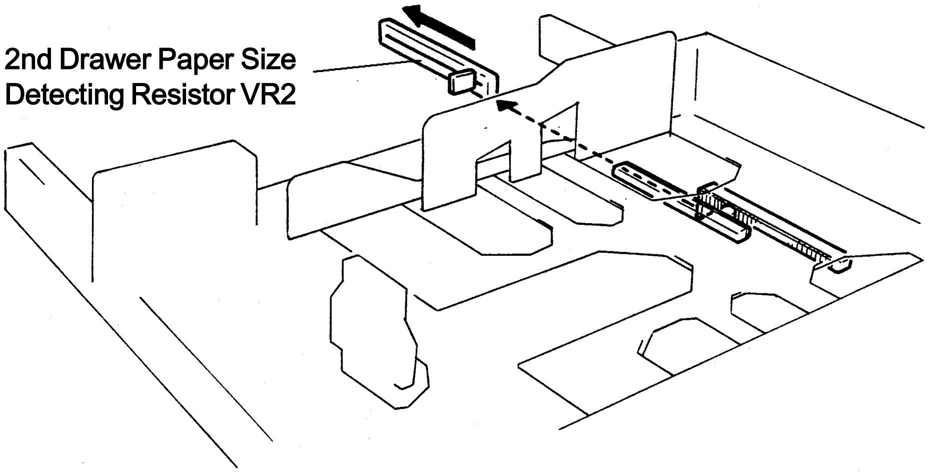
- The 2nd Drawer is a Universal Tray that automatically detects the size of the paper loaded in it. Both the length (in the feeding direction) and width (in the crosswise direction) of the paper are detected and the copier CPU determines the paper size based on the combination of the two readings. The width of FLS and other sizes (13” or 14” in the feeding direction) should, however, be set using the Tech. Rep. Choice function.
- The paper length (in the feeding direction) is detected by Paper Size Detecting Switch FD1 S9, FD2 S10, and FD3 S11 which are actuated or deactuated by the lever moved in phase with the Trailing Edge Stop.
- The paper width (in the crosswise direction) is detected by 2nd Drawer Paper Size Detecting Resistor VR2 fitted to the 3rd Drawer. The resistance of VR2 is varied as the rack of the Edge Guide for the 2nd Drawer pushes the resistor.

= Size Detection in Feeding Direction =



1161M017AA

= Side Detection in Crosswise Direction =



1161M018AA

<Reference> To compensate for part-to-part variations of VR2, be sure to run the FD operation of ”Function” available from the Tech. Rep. mode whenever the VR2 has been replaced or removed and reinstalled, or upon memory clear.

- Detectable Paper Sizes and ON/OFF Combinations of Paper Size Detecting Switches

Paper Size Name	Inch Equivalent	Width x Length (mm)	Paper Size Detecting Switches			
			Length			Width
			S9	S10	S11	VR2
A5L (Invoice L)*2	(5-1/2” × 8-1/2”)	148 × 210 (140 × 216)	–	○	–	Voltage across resistors Greater (4.23V) ↕ Smaller (0.54V)
B5L	–	182 × 257	○	–	–	
B5C	–	257 × 182	○	○	○	
A4L	–	210 × 297	–	–	–	
A4C	–	297 × 210	–	○	–	
B4L	–	257 × 364	–	○	○	
A3L	–	297 × 420	○	○	–	
Quarto C	10” × 8”	254 × 203	–	○	–	
G.Letter L	8” × 10-1/2”	203 × 267	○	–	–	
G.Letter C	10-1/2” × 8”	267 × 203	–	○	–	
Folio (*)	8-1/4” × 13”	210 × 330	–	–	○	
Letter L	8-1/2” × 11”	216 × 279	○	–	–	
Letter C	11” × 8-1/2”	279 × 216	–	○	–	
Legal (*)	8-1/2” × 14”	216 × 356	–	○	○	
11 × 14	11” × 14”	279 × 356	–	○	○	
Ledger	11” × 17”	279 × 432	○	○	–	
Comp Form	11” × 15”	279 × 381	○	○	○	
Korean FLS L	–	192 × 268	○	–	–	
FLS (*)	8” × 13”	203 × 330	–	–	○	
G. Legal L (*)	8-1/2” × 13”	216 × 330	–	–	○	
Folio (Eu.) (*)	8-1/4” × 14”	210 × 356	–	○	○	

Switch operation ○: ON –: OFF, Voltage values are standard.

* It is necessary to set the width in the crosswise direction using the Tech. Rep. Choice function.

*2 Metric areas: A5L
Inch areas: Invoice L

- Those sizes that have the same ON/OFF combinations are to be determined with the resistance value of VR.

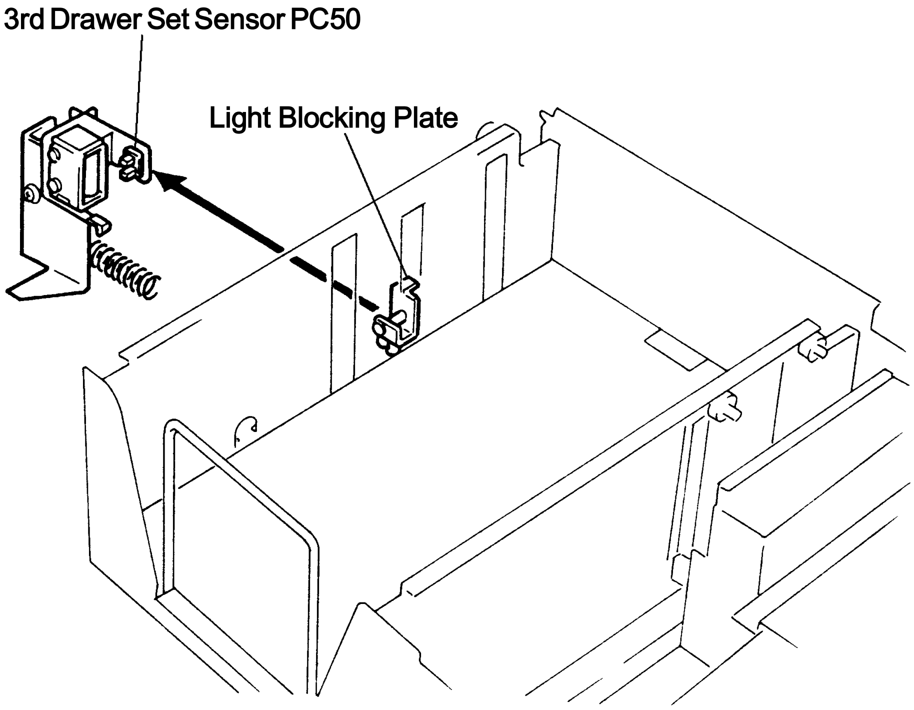
	Control Signal	ON	OFF	WIRING DIAGRAM
S9	PJ11F-9	L	H	41-B
S10	PJ11F-7	L	H	41-B
S11	PJ11F-5	L	H	41-C

	Control Signal	Small Resistance	Large Resistance	WIRING DIAGRAM
VR2	PJ20A-1	Analog input		66-P

1161SBM1507A

15-7. 3rd-Drawer-in-Position Detection

- When the 3rd Drawer is slid into the copier, the light blocking plate in the rear of the drawer blocks 3rd Drawer Set Sensor PC50 (L) and the copier determines that the 3rd Drawer has been slid into it.


3rd Drawer Set Sensor PC50
Light Blocking Plate
1075M111AA

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC50	PJ8F-2	H	L	48-K

1161SBM1508A

15-8. 3rd Drawer Paper Empty Detection

Main Tray

- A paper-empty condition of the Main Tray is detected by 3rd Drawer Main Tray Paper Empty Board PWB-E and 3rd Drawer Paper Empty Sensor PC24.
- PWB-E detects a paper-empty condition at a timing when the 3rd Drawer is slid into the copier (i.e., when the Main Tray is at its lower limit position). The copier notes a paper-empty condition if PWB-E is unblocked ($\boxed{\text{H}}$)
- PC24 works when paper is taken up from the Main Tray (i.e., when the Main Tray is at its upper limit position). The copier considers that the Main Tray has run out of paper if PC24 is unblocked ($\boxed{\text{H}}$)

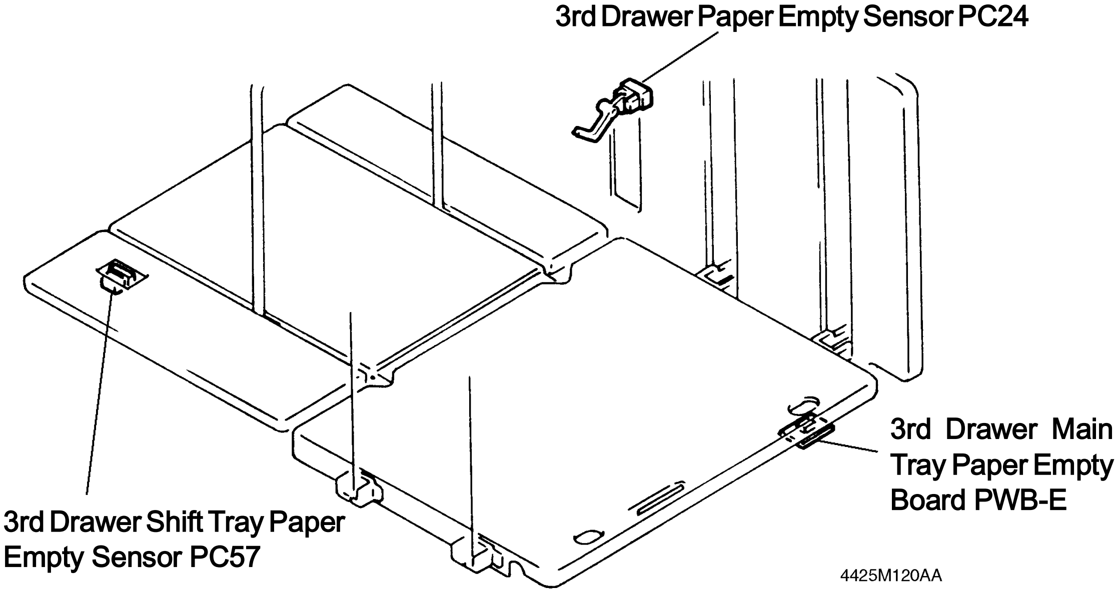
Shift Tray

- A paper-empty condition of the Shift Tray is detected by 3rd Drawer Shift Tray Paper Empty Sensor PC57.
- The copier considers that the Shift Tray has run out of paper when PC57 is unblocked ($\boxed{\text{H}}$)

<Copying Operation at Main/Shift Tray Paper Empty>

* When a paper-empty condition is detected in the Main Tray during a multi copy cycle, the paper stack on the Shift Tray, if available, is transferred to the Main Tray to continue the copy cycle. If paper is not loaded on the Shift Tray but paper of the same size and direction is loaded in any other paper source, that paper source is automatically selected for an uninterrupted copy cycle.

* When a paper-empty condition is detected in both the Main and Shift Tray during a multi copy cycle, and if no paper of the same size and direction is available, a paper-empty message is given on the Touch Panel and the copy cycle is terminated.


3rd Drawer Paper Empty Sensor PC24
3rd Drawer Main Tray Paper Empty Board PWB-E
3rd Drawer Shift Tray Paper Empty Sensor PC57
4425M120AA

	Control Signal	**Blocked**	**Unblocked**	**WIRING DIAGRAM**
PWB-E	PJ9A-6	H	L	61-K

	Control Signal	**Blocked**	**Unblocked**	**WIRING DIAGRAM**
PC24	PJ13F-6B	L	H	58-J
PC57	PJ9A-4	L	H	61-M

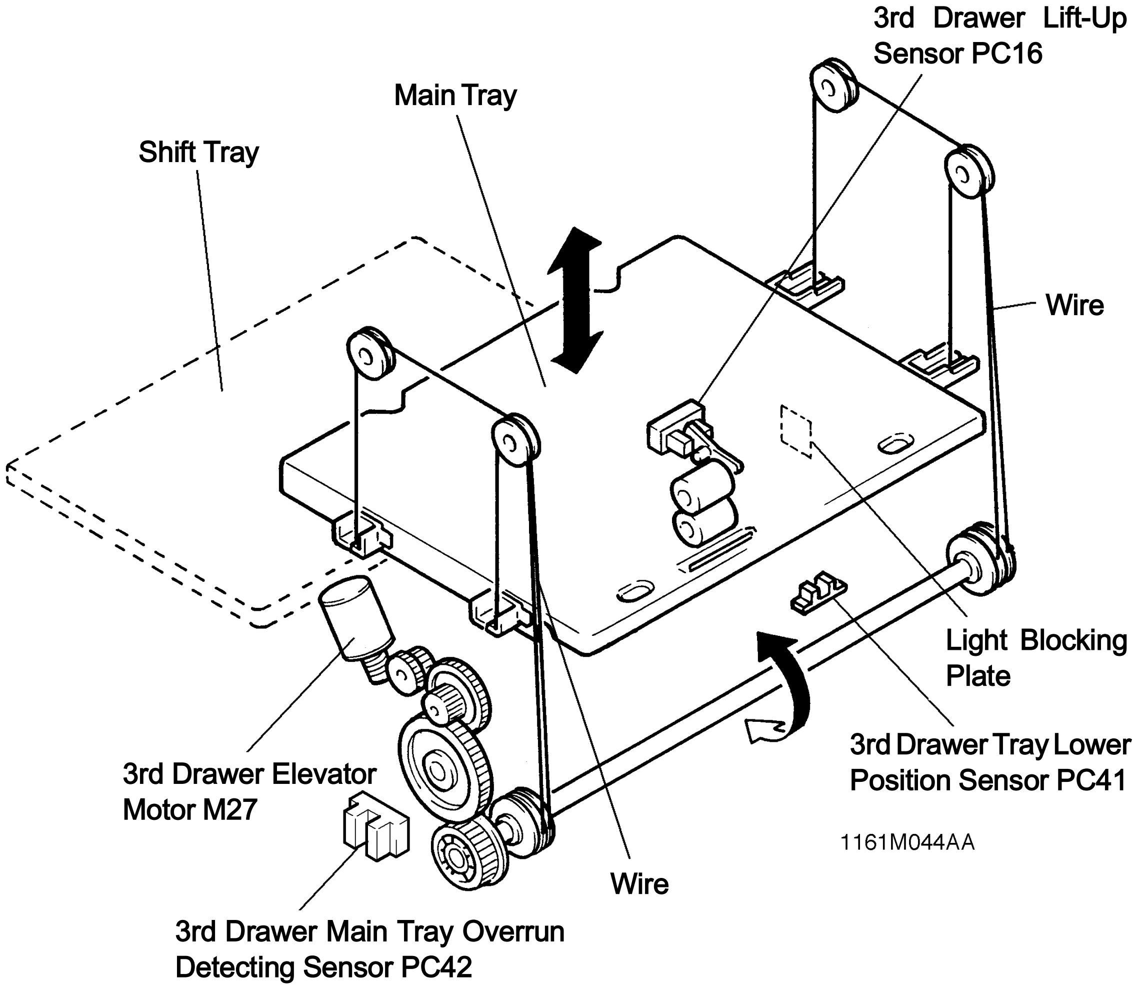
1161SBM1509A

15-9. Main Tray Paper Stack Lifting/Lowering Mechanism

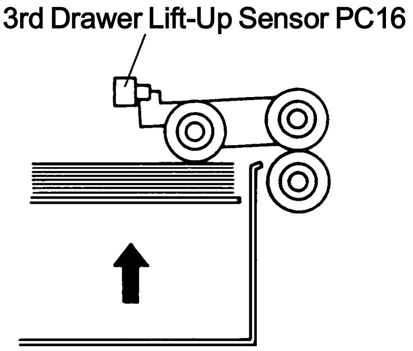
◆ Main Tray Paper Stack Lifting/Lowering Mechanism

- The Main Tray is raised and lowered by 3rd Drawer Elevator Motor M27. When M27 turns forward or backward, the wires at the front and rear are wound around, or fed off, the pulleys to raise or lower the Main Tray.

● Detection of Main Tray at its upper limit position	: When the Main Tray is raised, the paper stack on the tray presses upward the Paper Take-Up Roll Assy which blocks 3rd Drawer Lift-Up Sensor PC16 (L). The low signal indicates that the Main Tray has reached its upper limit position.
● Detection of Main Tray at its lower limit position	: As the Main Tray is lowered, the light blocking plate mounted on a gear of the Main Tray drive mechanism blocks (L) 3rd Drawer Main Tray Overrun Detecting Sensor PC42.


3rd Drawer Lift-Up Sensor PC16
Main Tray
Shift Tray
Wire
Light Blocking Plate
3rd Drawer Tray Lower Position Sensor PC41
3rd Drawer Elevator Motor M27
1161M044AA
Wire
3rd Drawer Main Tray Overrun Detecting Sensor PC42

When Drawer is Slid in



4425M114AA

3rd Drawer Set Sensor PC50 is blocked (L).

↓ 1 sec.

3rd Drawer Paper Descent Key UN11 is pressed. (For inch areas)

↓

M27 is energized to raise the Main Tray.

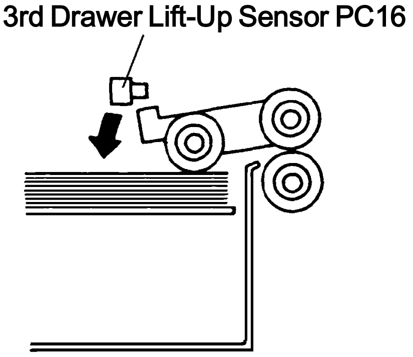
↓

The paper stack causes the light blocking plate of the Paper Take-Up Roll Assy to block PC16 (L).

↓ 15 msec.

M27 is deenergized.

During Copy Cycle



4425M113AA

Paper is consumed as copies are made.

↓

The Paper Take-Up Roll gradually lowers, unblocking PC16 (H).

↓

M27 is energized to raise the Main Tray, causing the paper stack to block PC16 (L).

* Repeating these operations keeps constant the pressure between the paper stack and Paper Take-Up Roll regardless of the amount of paper still available for use.

◆ Main Tray Up/Down Motion Conditions

- The Main Tray is Raised When:
  (1) The 3rd Drawer is slid into the copier with its Main Tray loaded with paper. (For metric areas)
  (2) Any of the following operations is performed with the 3rd Drawer slid into the copier and with the Main Tray loaded with paper. (For inch areas)

Press 3rd Drawer Paper Descent Key UN11.	Load originals on the Duplexing Document Feeder.
Turn ON Power Switch S1.	Place a paper stack on the Multi Bypass Table.
Open and close a door.	Slide the Sorter away from, and back to, the copier.
Raise and lower the Duplexing Document Feeder.	Press any key on the control panel.

  (3) The paper stack on the Shift Tray is transferred to the Main Tray.
  (4) 3rd Drawer Lift-Up Sensor PC16 is unblocked (H) during a paper take-up sequence with the Main Tray loaded with paper (during top level correction).

- The Main Tray is Lowered When:
  1. 3rd Drawer Paper Empty Sensor PC24 is unblocked ($\boxed{H}$) during a paper take-up sequence.
  2. 3rd Drawer Paper Descent Key UN11 is pressed.
  3. Power Switch S1 is turned ON when the Main Tray is located at a position other than its upper and lower limits.

◆ Main Tray Stop Conditions

- While the Main Tray is going up:
  1. 3rd Drawer Lift-Up Sensor PC16 is blocked ($\boxed{L}$).
  2. PC16 is blocked ($\boxed{L}$) during top level correction.

- While the Main Tray is going down:
  1. 3rd Drawer Tray Lower Position Sensor PC41 is blocked ($\boxed{L}$).
  2. 3rd Drawer Main Tray Overrun Detecting Sensor PC42 is blocked ($\boxed{L}$).

	Control Signal	Forward	Backward	WIRING DIAGRAM
M27	PJ5F-6, 7	L	H	61-J

	Control Signal	ON	OFF	WIRING DIAGRAM
UN11	PJ9A-10	L	H	61-K

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC16	PJ13F-8A	L	H	55-J
PC41	PJ9A-9	L	H	61-O
PC42	PJ9A-2	L	H	61-L
PC50	PJ8F-2	L	H	48-J

1161SBM1510A

15-10. 3rd Drawer Paper Level Detecting Mechanism

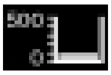
- The amount of paper still available for use, or the paper level, of the Main Tray is detected using 3rd Drawer Elevator Motor Pulse Sensor PC55 and a pulse disk which detect the speed of 3rd Drawer Elevator Motor M27.

When 3rd Drawer is Slid in

Counting of the number of pulses is started when M27 is energized (to turn forward) and continues until PC16 is blocked ($\boxed{L}$). The total number of pulses is translated into the amount of paper which is shown on the Touch Panel as a graphic marker in units of 50 sheets of paper.

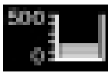
*Paper Level Indicator

- 1 to 50 sheets



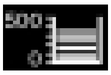
1134M058AA

- 50 to 200 sheets



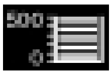
1134M059AA

- 200 to 350 sheets



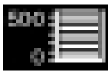
1134M060AA

- 350 to 500 sheets



1134M061AA

- 500 sheets up

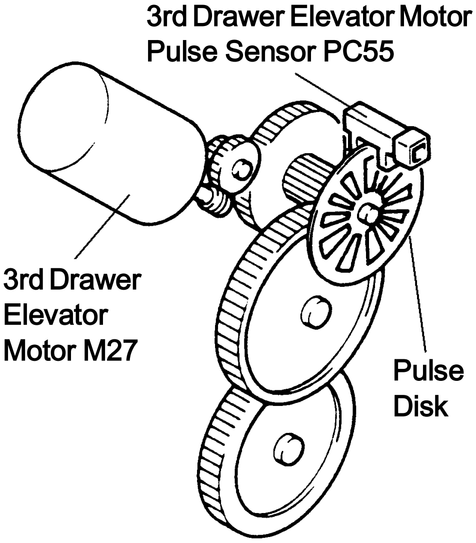


1134M062AA

During Copy Cycle

As the paper is consumed and the top level of the paper stack lowers, M27 is energized (to turn forward) to raise the paper stack. During this time, PC55 detects pulses and that pulse count is accumulated. When the count reaches 50 sheets of paper, one segment of the paper level indicator on the Touch Panel goes out.

NOTE: If there is paper on the Shift Tray, the copier detects that 500 sheets or more of paper are left in the 3rd Drawer as long as paper is left on the Main Tray.


3rd Drawer Elevator Motor Pulse Sensor PC55
3rd Drawer Elevator Motor M27
Pulse Disk

4444M050AA

	Control Signal	ON	OFF	WIRING DIAGRAM
M27	PJ5F-6, 7	L	H	61-J

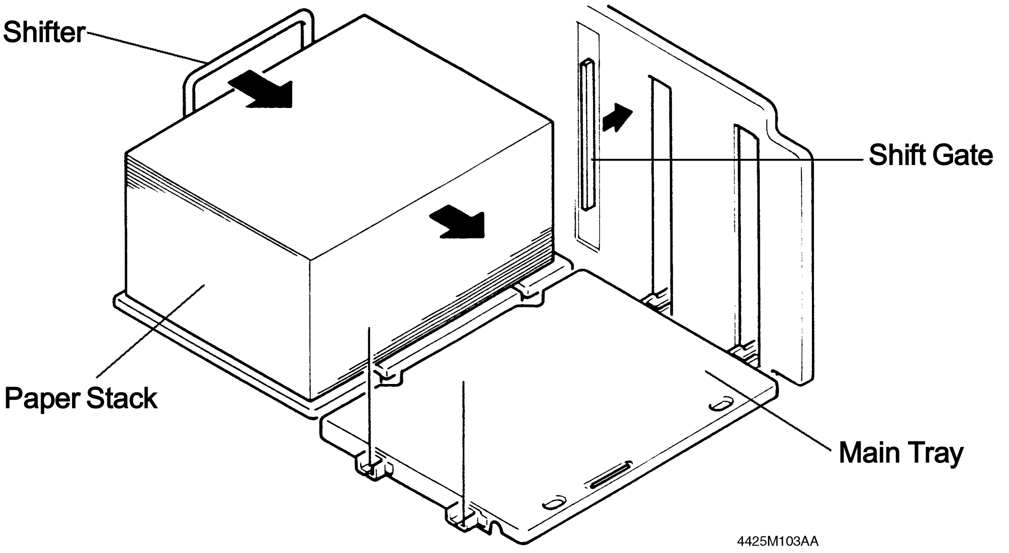
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC55	PJ9A-5	L	H	61-N

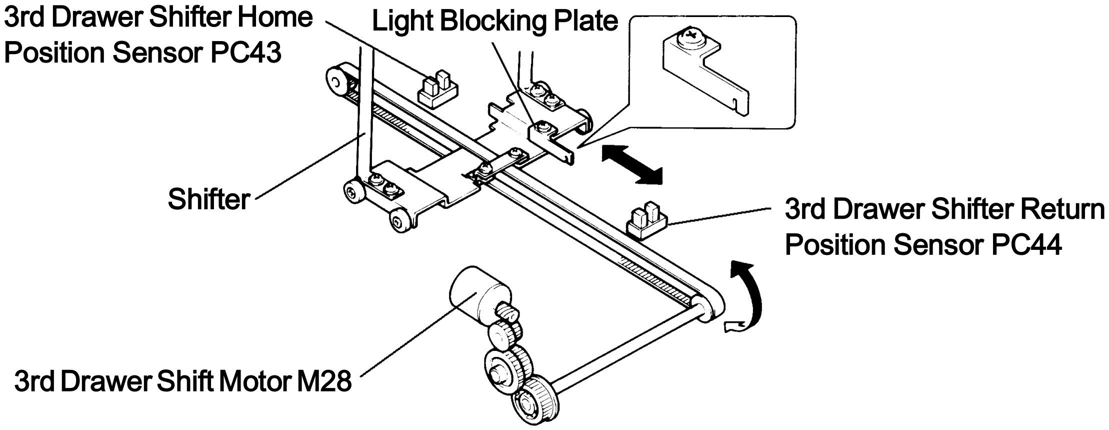
1161SBM1511A

15-11. Shifter Drive Mechanism

- The Shifter is driven by 3rd Drawer Shift Motor M28 via a belt. As M28 is energized, the Shifter transfers the paper stack on the Shift Tray to the Main Tray.
- The Shifter is at its home position when 3rd Drawer Shifter Home Position Sensor PC43 is blocked (L). This is before the Shifter moves the paper stack to the Main Tray.
- The return position of the Shifter is where the light blocking plate (*1) on the bottom of the Shifter blocks (L), unblocks (H), and then blocks (L) again 3rd Drawer Shifter Return Position Sensor PC44. This is when the Shifter has just transferred the paper stack onto the Main Tray.

(*1): The light blocking plate is shaped as shown below (having a cutout in it). As it moves past PC44, it produces the sensor outputs as shown.


Shifter
Shift Gate
Paper Stack
Main Tray
4425M103AA


3rd Drawer Shifter Home Position Sensor PC43
Light Blocking Plate
Shifter
3rd Drawer Shifter Return Position Sensor PC44
3rd Drawer Shift Motor M28
1075M112AA

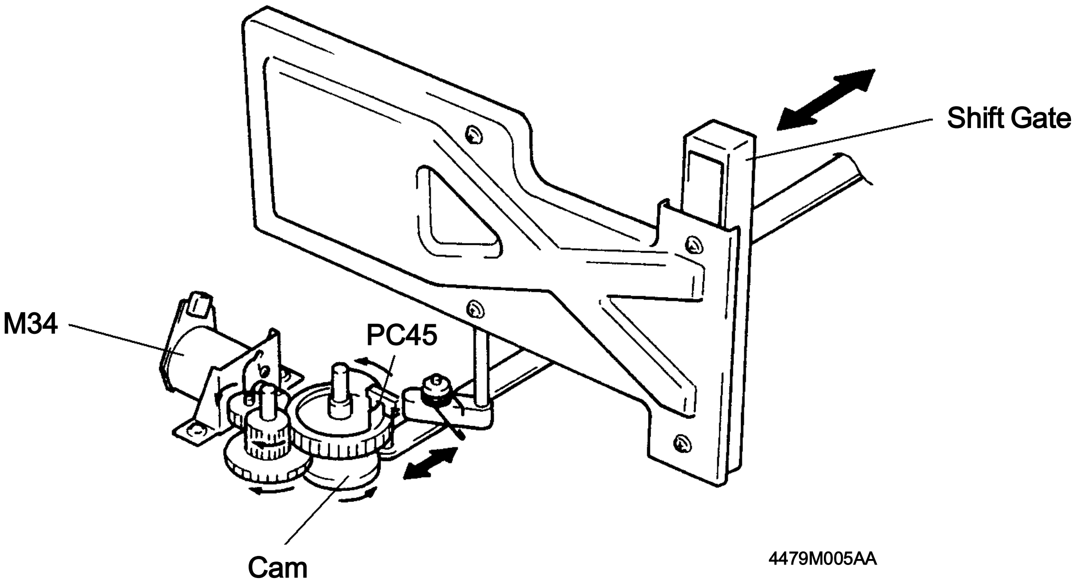
	Control Signal	Forward	Backward	WIRING DIAGRAM
M28	PJ5F-4, 5	L	H	61-I

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC43	PJ9A-8	H	L	61-N
PC44	PJ9A-7	H	L	61-N

1161SBM1512A

15-12. Shift Gate Drive Mechanism

- The Shift Gate serves as a wall to block the paper on the Shift Tray from moving toward the Main Tray.
- When the paper stack on the Shift Tray needs to be moved onto the Main Tray, the Shift Gate is retracted.
- The drive from Shift Gate Motor M34 turns the cam to move the Shift Gate to the front or rear. 3rd Drawer Shift Gate Position Sensor PC45 detects where the Shift Gate is located.



	Control Signal	ON	OFF	WIRING DIAGRAM
M34	PJ5F-2	L	H	61-I

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC45	PJ5F-1	L	H	61-P

1161SBM1513A

15-13. 3rd Drawer Lock/Release

Lock

- When the 3rd Drawer is slid into the copier, the locking pawl in the rear of the copier is hooked onto the locking shaft in the rear of the 3rd Drawer.

Release

Press 3rd Drawer Paper Descent Key UN11.

↓

The Main Tray starts lowering and blocks 3rd Drawer Tray Lower Position Sensor PC41 (L).

↓ 0.5 sec.

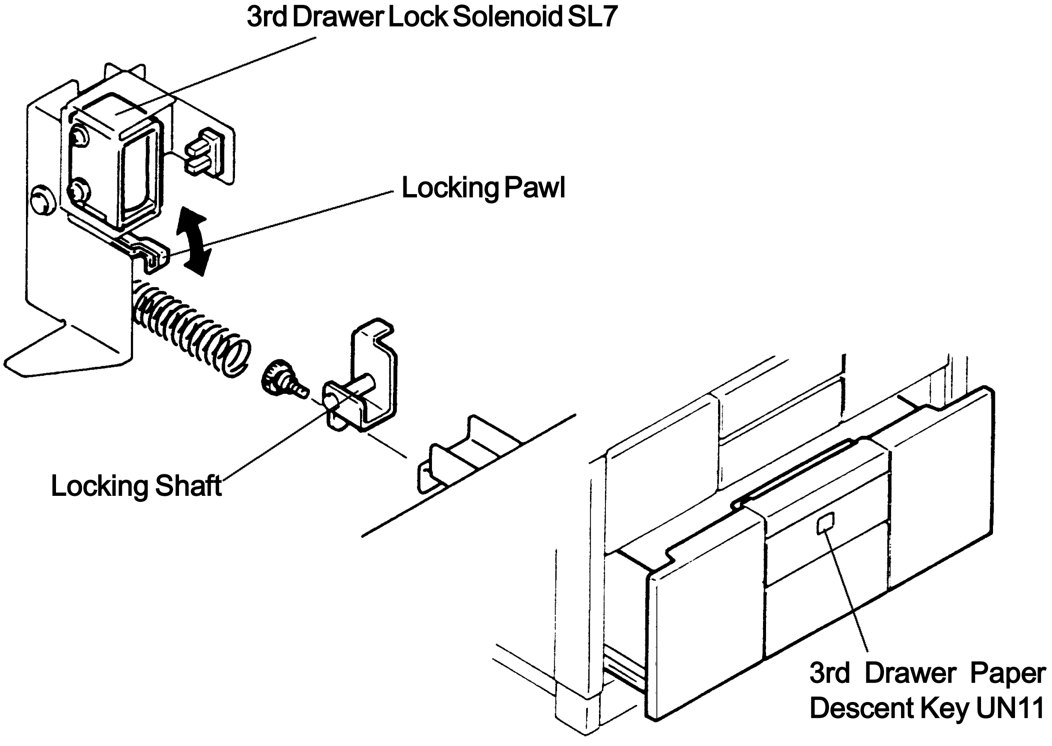
3rd Drawer Lock Solenoid SL7 is energized and remains so for 0.5 sec.

↓

The locking pawl in the rear of the copier is disengaged from the locking shaft in the rear of the 3rd Drawer.

↓

The tension of the spring in the rear of the copier pushes the 3rd Drawer approx. 70 mm out to the front.


3rd Drawer Lock Solenoid SL7
Locking Pawl
Locking Shaft
3rd Drawer Paper Descent Key UN11

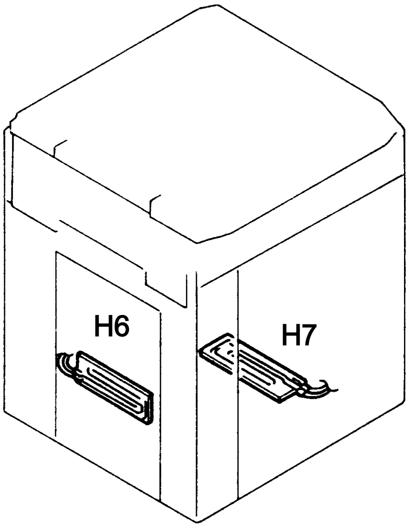
4425M106AA

	Control Signal	ON	OFF	WIRING DIAGRAM
SL7	PJ7F-2	L	H	48-K
UN11	PJ9A-10	L	H	61-K

1161SBM1514A

15-14. Paper Dehumidifying Heaters (Except Europe, U.S.A., and Canada)

- When the paper in the drawer grows damp, its electrical resistance decreases, which degrades image transfer efficiency. As a result, void areas and other image problems occur on the copy.
- Upper and Lower Paper Dehumidifying Heaters H6 and H7 are provided to prevent this problem.



1075M113AA

◆ Upper/Lower Paper Dehumidifying Heater ON/OFF Conditions

- ON Conditions

  H6 and H7 are turned ON when Paper Dehumidifying Switch S8 is turned ON with the power cord plugged in.
- OFF Conditions

  H6 and H7 are OFF during a copy cycle.

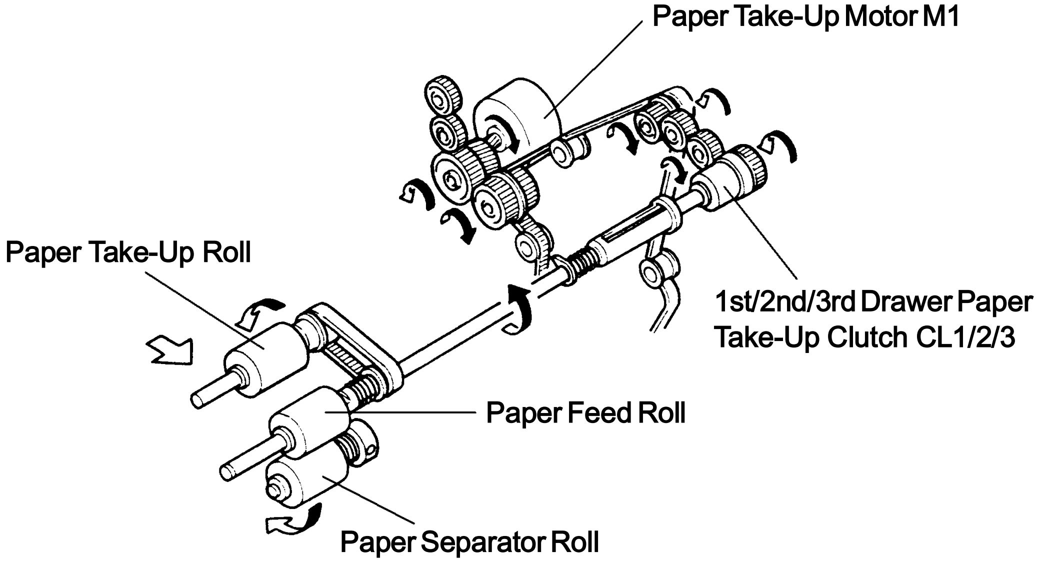
	Control Signal	ON	OFF	WIRING DIAGRAM
S8	PJ8C-3	L	H	66-O
H6	PJ8C-4	L	H	66-N
H7	PJ8C-5	L	H	66-O

1161SBM1515A

15-15. Drawer Paper Take-Up Mechanism

<Paper Take-Up Mechanism>

- Drive for the paper take-up sequence is transmitted from Paper Take-Up Motor M1 when 1st/2nd/3rd Drawer Paper Take-Up Clutch CL1/2/3 is energized.

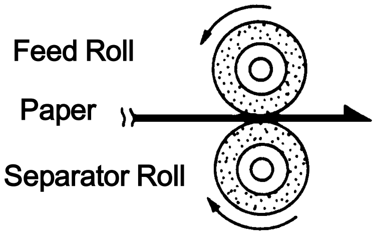

Paper Take-Up Motor M1
Paper Take-Up Roll
1st/2nd/3rd Drawer Paper Take-Up Clutch CL1/2/3
Paper Feed Roll
Paper Separator Roll

1075M114AA

<Paper Separating Mechanism>

- The paper separating mechanism employs a torque limiter to ensure that only the top sheet of paper is fed in by separating the second sheet of paper from the top one.
- This is accomplished by the difference in friction coefficient between the Feed and Separator Rolls.

<Normal Feeding>

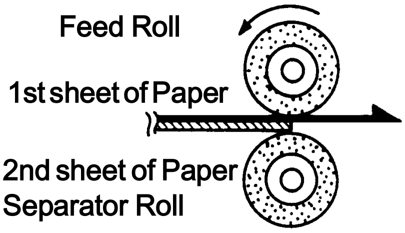


4425M012AA

Driven

- When only one sheet of paper is taken up, the friction coefficient on the top side of the paper is equal to that on the underside. Driven by the Feed Roll, the paper drives the Separator Roll, allowing the paper to be fed into the Vertical Transport Section.

<Double Feeding>



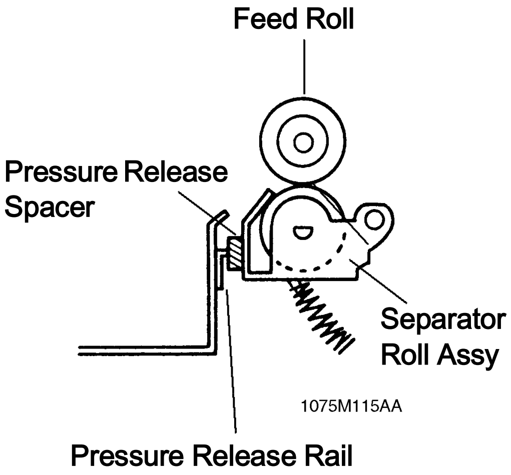
4425M013AA

Stationary

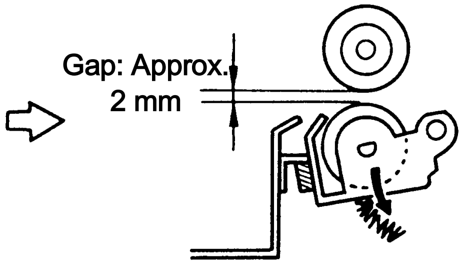
- Since the friction coefficient between the second sheet of paper and the Separator Roll is greater than that between the first and second sheets of paper, the Separator Roll is not driven and holds the second sheet of paper. The Feed Roll thus feeds the first sheet of paper into the Vertical Transport Section.

<Paper Pressure Release Mechanism> (Except 3rd Drawer)

- If the drawer is pulled out when a sheet of paper is pinched between the Feed and Separator Rolls, that sheet of paper is left inside the copier and it becomes difficult to remove it.
- This copier is therefore provided with a mechanism that releases the Separator Roll from the Feed Roll when the drawer is slid out of the copier.
- The paper pressure release mechanism consists of the Pressure Release Spacer on the Separator Roll Assy and the Pressure Release Rail fitted to the upper part of the Drawer Rail. When the drawer is slid out, the Pressure Release Rail presses down the Pressure Release Spacer, which results in the Separator Roll being disengaged from the Feed Roll.


Feed Roll
Pressure Release Spacer
Separator Roll Assy
Pressure Release Rail

1075M115AA

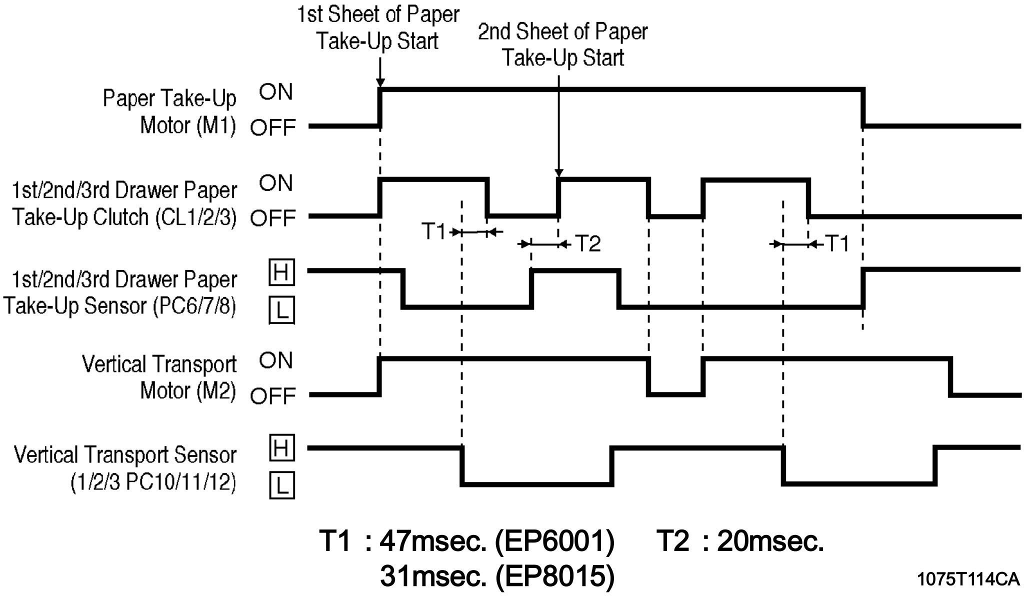

Gap: Approx. 2 mm

1075M116AA

<Paper Take-Up Motor M1 Control>

- Paper Take-Up Motor M1 is a DC motor* and controlled by the M1 Remote signal output from Master Board PWB-A.
  * EP8015: Stepping Motor

◆ Control Timing (Multi copy cycle for 2 copies)


1st Sheet of Paper Take-Up Start
2nd Sheet of Paper Take-Up Start
Paper Take-Up Motor (M1)
ON
OFF
1st/2nd/3rd Drawer Paper Take-Up Clutch (CL1/2/3)
ON
OFF
T1
T2
T1
1st/2nd/3rd Drawer Paper Take-Up Sensor (PC6/7/8)
H
L
Vertical Transport Motor (M2)
ON
OFF
Vertical Transport Sensor (1/2/3 PC10/11/12)
H
L
T1 : 47msec. (EP6001)
31msec. (EP8015)
T2 : 20msec.
1075T114CA

	Control Signal	ON	OFF	WIRING DIAGRAM
M1	PJ2F-2	L	H	48-N
M1 (EP8015)	PJ18F-3∼6	Pulse Output		48-N
CL1	PJ15F-2B	L	H	58-M
CL2	PJ14F-2B	L	H	58-K
CL3	PJ13F-2B	L	H	58-J

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC6	PJ15F-2A	L	H	55-N
PC7	PJ14F-2A	L	H	55-L
PC8	PJ13F-2A	L	H	55-K

<Paper Take-Up Retry Control>

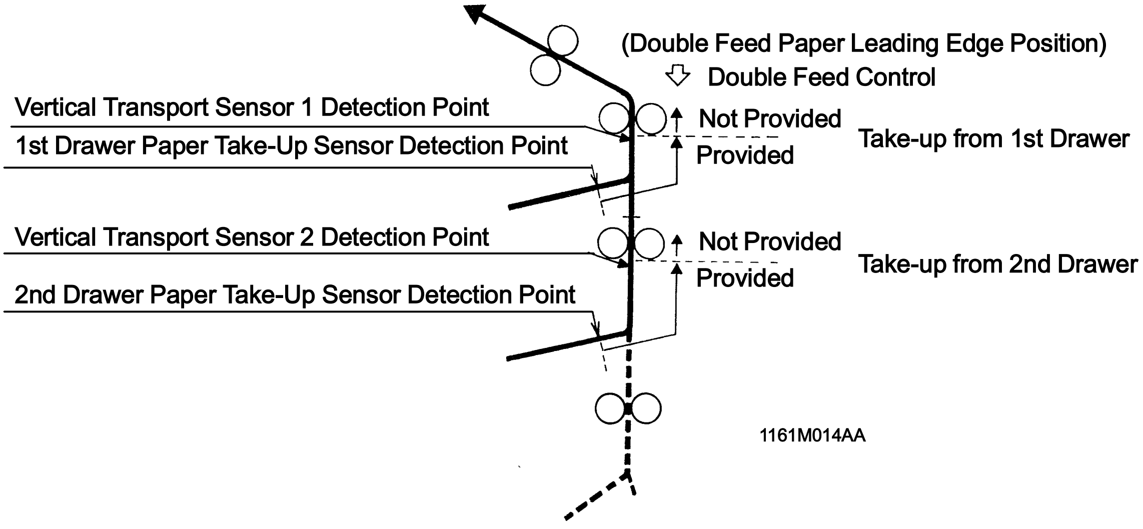
- To minimize the occurrence of paper misfeed due to a slippery Paper Take-Up Roll, the following paper take-up retry control is provided. If paper does not reach the paper take-up sensor within a given period of time after the paper take-up clutch has been energized, Paper Take Up Motor M1 is temporarily deenergized and then M1 and the paper take-up clutch are energized again.
- A paper misfeed results if the sheet of paper does not reach the paper take-up sensor even after three paper take-up sequences.

<Paper Take-Up Interval Control>

- The Paper Feed Roll and Separator Roll may sometimes fail to separate the subsequent sheet of paper properly and the leading edge of that paper may be ahead of the Feed and Separator Rolls inside the copier. If the paper take-up sequence for that paper is started in this condition, the distance between the preceding and the current sheet of paper will be shorter than normal, resulting in a misfeed.
- If the time it takes the paper to block (L) the paper take-up sensor after the paper take-up clutch has been energized is shorter than a predetermined time, the paper take-up clutch is temporarily deenergized; after a given period of time, it is energized again to provide a good interval between two paper take-ups. This is called the paper take-up interval control.

<Double Feed Control>

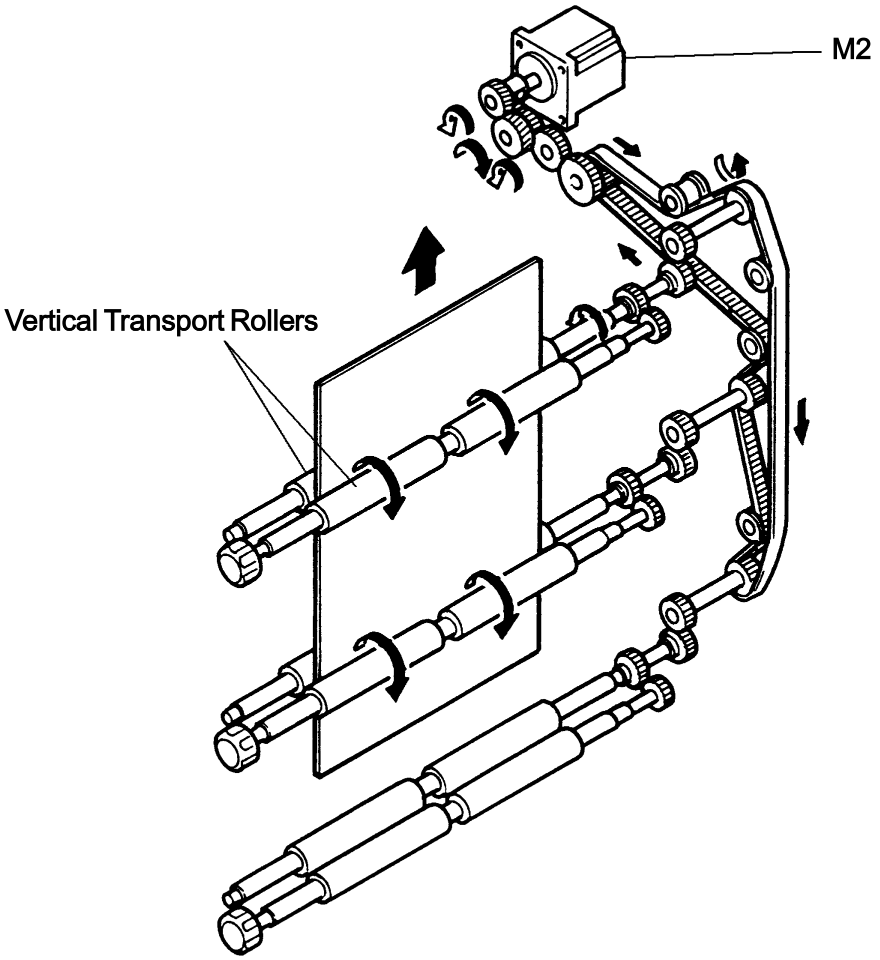
- Even if the Paper Take-Up Roll takes up two sheets of paper at one time, the double feed control uses the second sheet of paper for the next copy cycle without causing a paper misfeed. It eliminates a paper misfeed that would otherwise result when two sheets of paper are taken up at once.
- Is the second sheet of paper is stationary blocking the paper take-up sensor when the trailing edge of the first sheet of paper moves past the vertical transport sensor (unblocked), the copier determines that it is a double feed condition and provides double feed control.
- If, however, the second sheet of paper has reached the Vertical Transport Roller, the double feed control is not provided since the paper is fed further into the copier by the Vertical Transport Roller. This could result in a paper misfeed or the second sheet of paper being fed through the copier with the first one.


(Double Feed Paper Leading Edge Position)
⇩ Double Feed Control
Vertical Transport Sensor 1 Detection Point
1st Drawer Paper Take-Up Sensor Detection Point
Not Provided
Provided
Take-up from 1st Drawer
Vertical Transport Sensor 2 Detection Point
2nd Drawer Paper Take-Up Sensor Detection Point
Not Provided
Provided
Take-up from 2nd Drawer
1161M014AA

1161SBM1516A

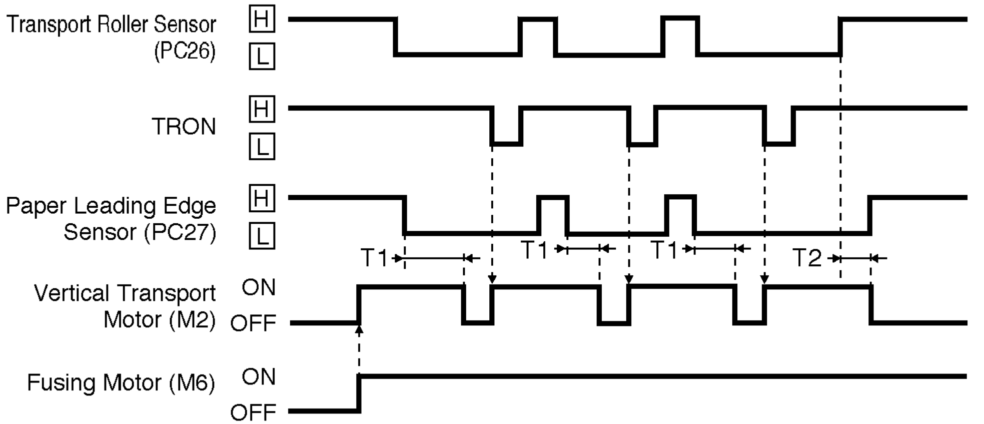
15-16. Vertical Transport Drive Mechanism

- Each Vertical Transport Roller is driven by Vertical Transport Motor M2.



1075M118AB

◆ Timing Chart



1161T34MCA

T1 : 67msec. (EP6001)
34msec. (EP8015)

T2 : 74msec. (EP6001)
48msec. (EP8015)

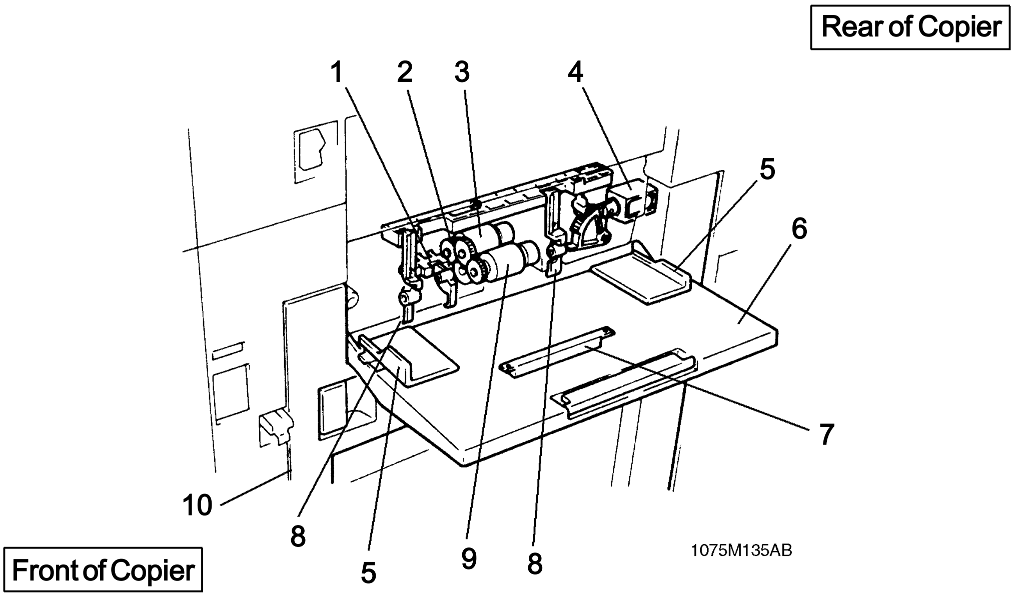
	Control Signal	ON	OFF	WIRING DIAGRAM
M2	PJ17F-3~6	Pulse Output		48-P

1161SBM1517A

15-17. Multi Bypass Table

(1) Construction

- The Multi Bypass Table consisting of the following parts is fitted to the Right Door of the copier.

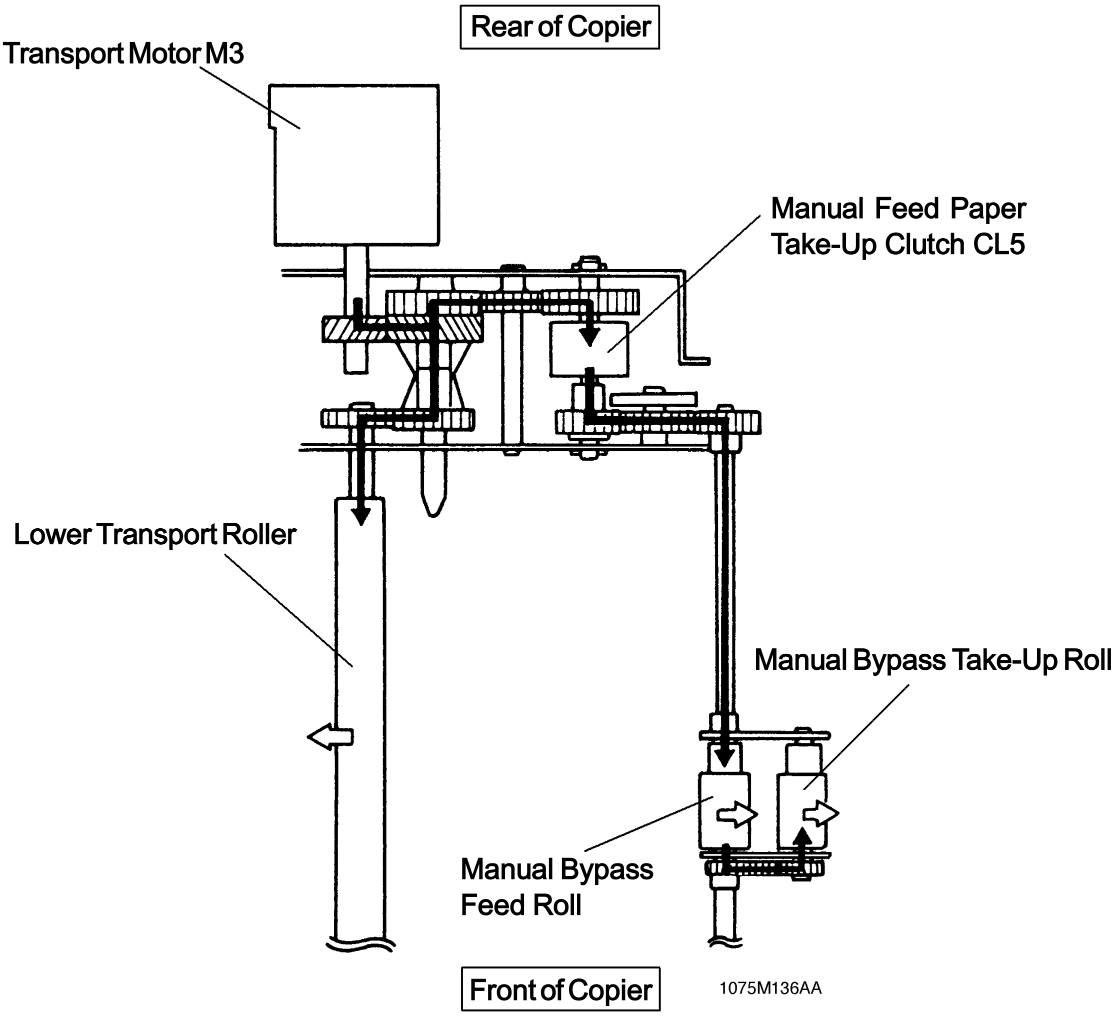


Rear of Copier
1
2
3
4
5
6
7
10
8
5
9
8
Front of Copier
1075M135AB

1. Manual Feed Paper Empty Sensor PC28
2. Manual Bypass Separator Roll
3. Manual Bypass Feed Roll
4. Manual Feed Paper Pick-Up Solenoid SL8
5. Manual Bypass Edge Guides
6. Manual Bypass Table
7. Manual Feed Size Detecting Resistor VR1
8. Paper Stopper
9. Manual Bypass Take-Up Roll
10. Right Door

(2) Manual Bypass Paper Take-Up Drive Mechanism

- Drive for paper take-up from the Multi Bypass Table is transmitted from Transport Motor M3 via Manual Feed Paper Take-Up Clutch CL5 to the Manual Bypass Feed and Take-Up Rolls.
- Here is the drive train.

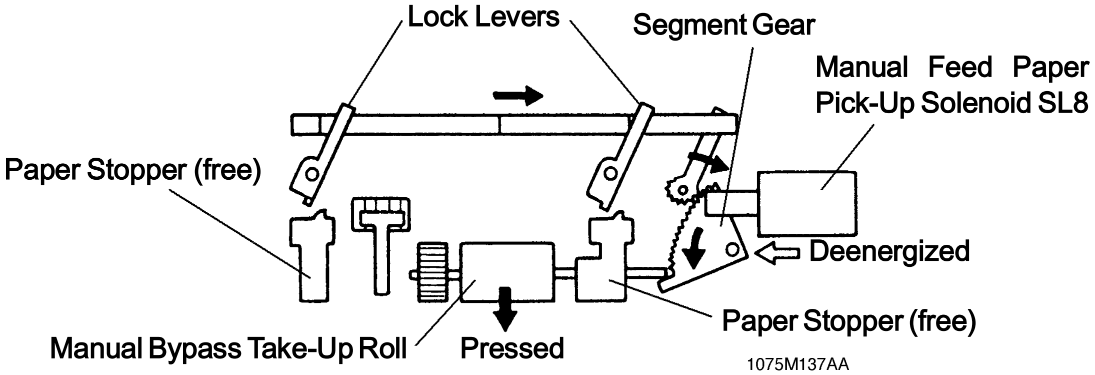

Rear of Copier
Transport Motor M3
Manual Feed Paper Take-Up Clutch CL5
Lower Transport Roller
Manual Bypass Take-Up Roll
Manual Bypass Feed Roll
Front of Copier
1075M136AA

(3) Manual Take-Up Roll Pressure Mechanism

- The Manual Bypass Take-Up Roll is operated as follows when Manual Feed Paper Pick-Up Solenoid SL8 is energized and deenergized.
- The two Paper Stoppers, which block the leading edge of the paper stack loaded on the Multi Bypass Table, are also operated as follows as SL8 is energized and deenergized.

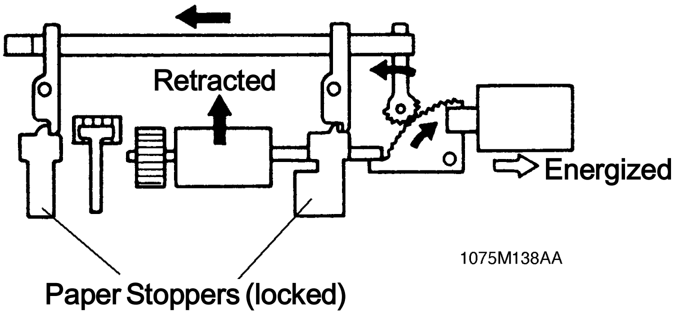
	SL8	Take-Up Roll Position	Paper Stoppers
At take-up	Deenergized	Pressing paper	Free
At timings other than take-up	Energized	Retracted	Locked

<At Take-Up>


Lock Levers
Segment Gear
Manual Feed Paper Pick-Up Solenoid SL8
Paper Stopper (free)
Deenergized
Paper Stopper (free)
Manual Bypass Take-Up Roll
Pressed

1075M137AA

<At Timing Other Than Take-Up>


Retracted
Energized
Paper Stoppers (locked)

1075M138AA

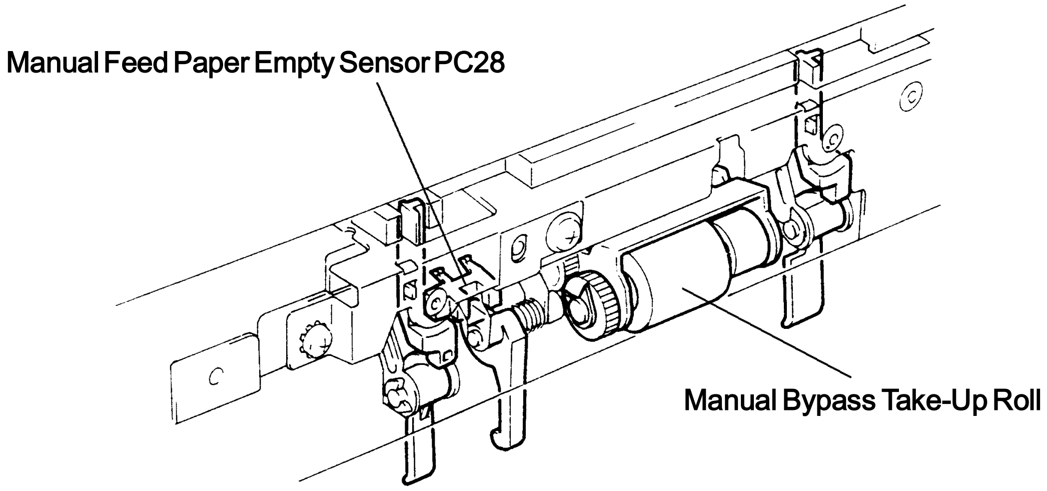
(4) Paper Separating Mechanism

The paper separating mechanism ensures that only the top sheet of paper is fed in by separating the second sheet of paper from the top one. This is accomplished by the Torque Limiter fitted to the Separator Roll shaft which stops the Separator Roll when there is a change in friction between the Feed and Separator Rolls.

* For details of the paper separating mechanism, see “15-15. Drawer Paper Take-Up Mechanism”.

(5) Manual Bypass Paper Empty Detection

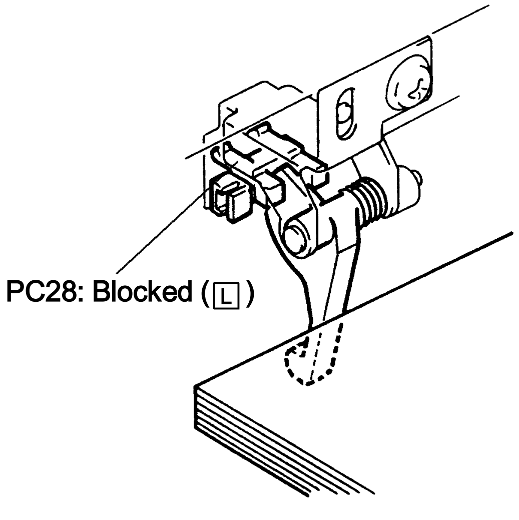
- The Multi Bypass Table is equipped with Manual Feed Paper Empty Sensor PC28 which detects a sheet of paper on the Multi Bypass Table.


Manual Feed Paper Empty Sensor PC28
Manual Bypass Take-Up Roll

1075M140AA

<When Paper is Placed>

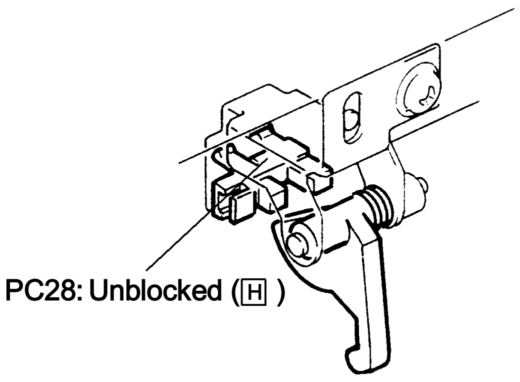
- When paper is placed on the Multi Bypass Table, PC28 is blocked (L) as follows.


PC28: Blocked (L)

1075M141AB

<When No Paper is Placed>

- When there is no paper on the Multi Bypass Table, PC28 is unblocked (H) as follows.


PC28: Unblocked (H)

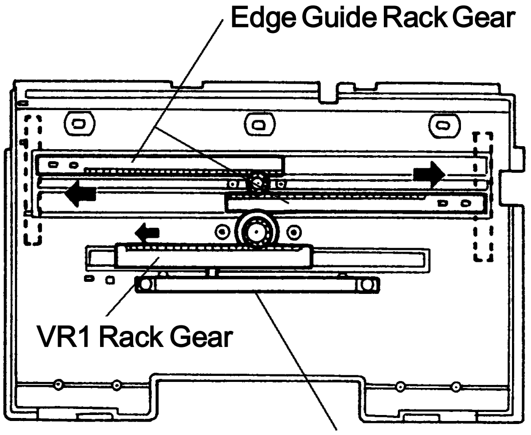
1075M142AA

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC28	PJ5A-10A	H	L	44-I

(6) Manual Bypass Paper Width Detection

- In this copier, the original is aligned with the rear edge, while the paper is fed though the center of the copier. For this reason, it becomes necessary to detect the width of the paper placed on the Multi Bypass Table and move the Lens in the Y (crosswise) direction.
- There is a sliding resistor installed whose resistance is varied as the Manual Bypass Edge Guides are moved. The resistor is Manual Feed Size Detecting Resistor VR1 which detects the width of the paper loaded on the table.
- The movement of the Manual Bypass Edge Guides is relayed via the Edge Guide Rack Gear and gear A to the VR1 Rack Gear as illustrated below.

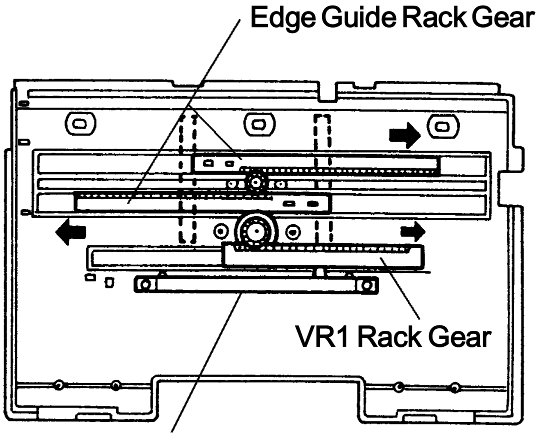
= Moving Edge Guides Out =



1075M143AB

<From Back Side>

= Moving Edge Guides In =



1075M144AB

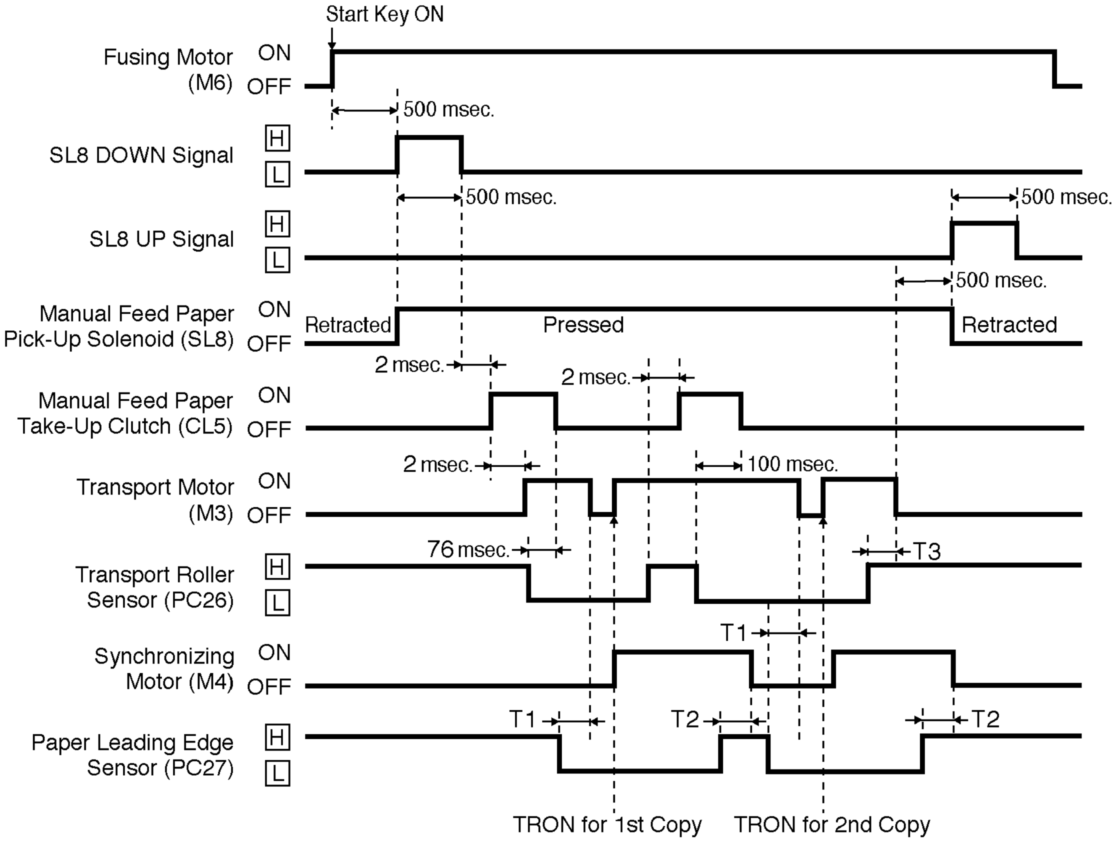
<From Back Side>

<Ref.> Whenever VR1 has been replaced, or removed and reinstalled, or memory cleared, run the FD operation of Function and set the reference value for paper width detection. This will compensate for VR1 part-to-part variations and differences in installed position.

	Control Signal	Output Voltage	WIRING DIAGRAM
VR1	PJ20A-2	Analog Input	44-J

(7) Manual Bypass Take-Up Control

<Multi Copy Cycle for 2 Copies>


Start Key ON
Fusing Motor (M6)
ON
OFF
500 msec.
SL8 DOWN Signal
H
L
500 msec.
500 msec.
SL8 UP Signal
H
L
500 msec.
Manual Feed Paper Pick-Up Solenoid (SL8)
ON
OFF
Retracted
Pressed
Retracted
2 msec.
2 msec.
Manual Feed Paper Take-Up Clutch (CL5)
ON
OFF
2 msec.
100 msec.
Transport Motor (M3)
ON
OFF
76 msec.
T3
Transport Roller Sensor (PC26)
H
L
T1
Synchronizing Motor (M4)
ON
OFF
T1
T2
T2
Paper Leading Edge Sensor (PC27)
H
L
TRON for 1st Copy
TRON for 2nd Copy

T1 : 67msec. (EP6001)
29msec. (EP8015)

T2 : 87msec. (EP6001)
52msec. (EP8015)

T3 : 76msec. (EP6001)
50msec. (EP8015)

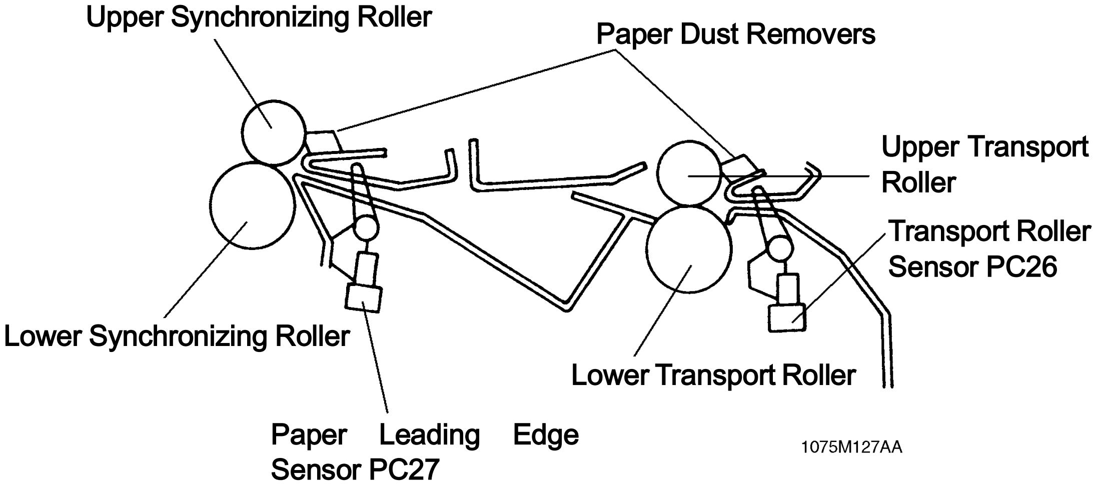
1161T21MCA

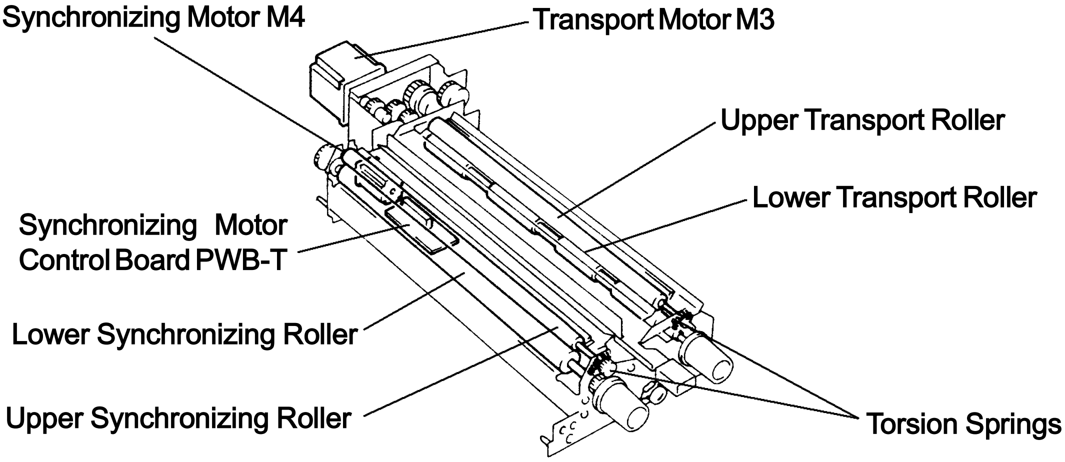
	Control Signal	ON	OFF	WIRING DIAGRAM
CL5	PJ5A-5B	L	H	44-I
SL8 DOWN	PJ3A-6B	L	H	44-H
SL8 UP	PJ3A-5B	L	H	44-H

1161SBM1600A

16 TRANSPORT/SYNCHRONIZING ROLLERS UNIT

- The Transport/Synchronizing Rollers Unit can be removed as an assembly for easy serviceability.
- Each of the Transport and Synchronizing Rollers is driven by a stepping motor dedicated to it so that the paper is properly fed by the Transport Rollers and a loop is positively formed in the paper before the Synchronizing Rollers.
- The Transport/Synchronizing Rollers Unit is made of the following parts.


Upper Synchronizing Roller
Paper Dust Removers
Upper Transport Roller
Transport Roller Sensor PC26
Lower Synchronizing Roller
Lower Transport Roller
Paper Leading Edge Sensor PC27
1075M127AA

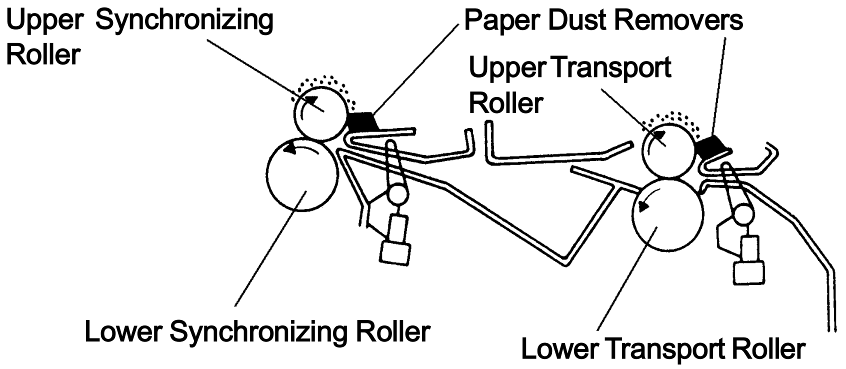

Synchronizing Motor M4
Transport Motor M3
Upper Transport Roller
Lower Transport Roller
Synchronizing Motor Control Board PWB-T
Lower Synchronizing Roller
Upper Synchronizing Roller
Torsion Springs

1075M128AA

1161SBM1601A

16-1. Paper Dust Remover

- The Upper Transport Roller and Upper Synchronizing Roller are each equipped with a Paper Dust Remover to prevent paper dust from sticking to the surface of the PC Drum.
- Since these two rollers are covered with a vinyl tubing, triboelectric charging occurs as the rollers turn in contact with the Paper Dust Remover.
- As paper is fed through the rollers, the charges on the tubing attract paper dust from the paper. The dust is then transferred onto the Paper Dust Remover.

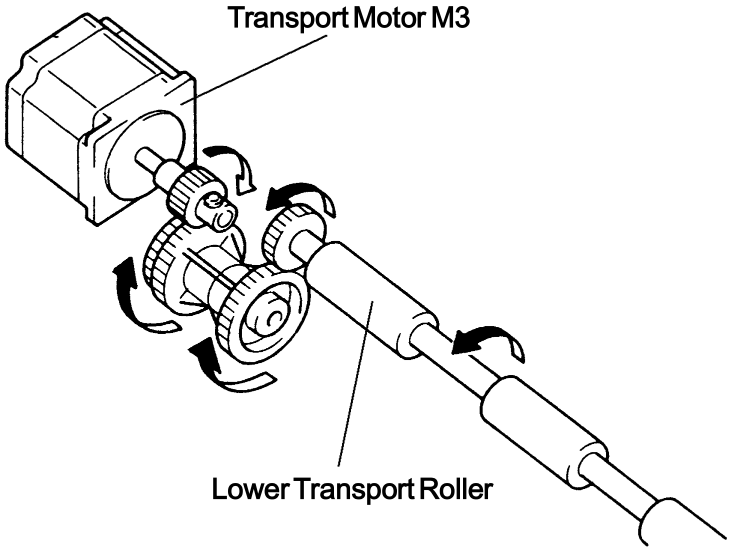

Upper Synchronizing Roller
Paper Dust Removers
Upper Transport Roller
Lower Synchronizing Roller
Lower Transport Roller

1075M129AA

1161SBM1602A

16-2. Transport Roller Drive Mechanism

- The Upper Transport Roller is driven by the Lower Transport Roller.
- The Lower Transport Roller is driven by Transport Motor M3 through a gear train.


Transport Motor M3
Lower Transport Roller

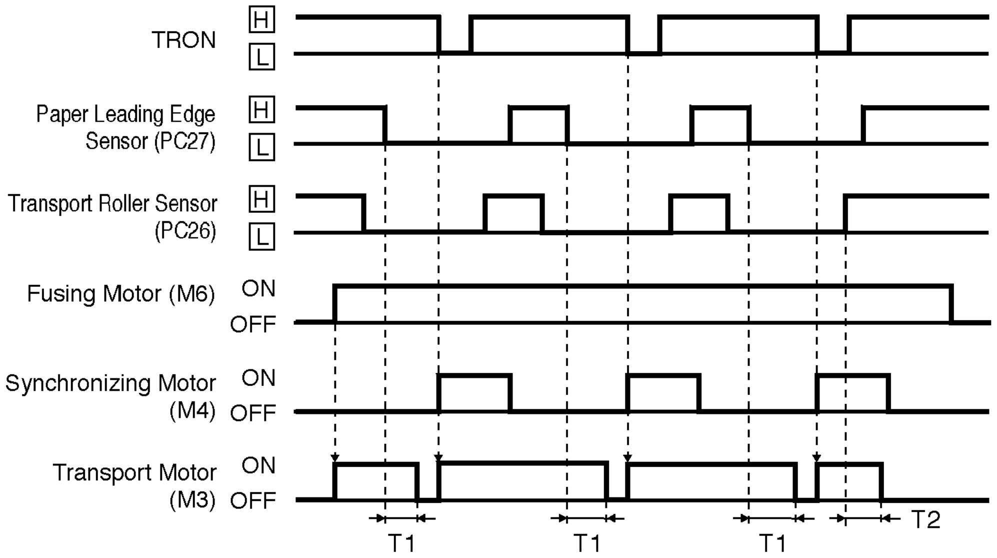
1075M130AA

1161SBM1603A

16-3 Transport Roller Drive Control

- The Transport Rollers are driven by Transport Motor M3.
- M3, a stepping motor, is controlled by energizing the four internal coils using pulse signals output from Drawer S/P Board PWB-F, as controlled by Master Board PWB-A.

<Multi Copy Cycle for 3 Copies>



T1 : 67msec. (EP6001) 29msec. (EP8015)
T2 : 76msec. (EP6001) 50msec. (EP8015)

1161T35MCA

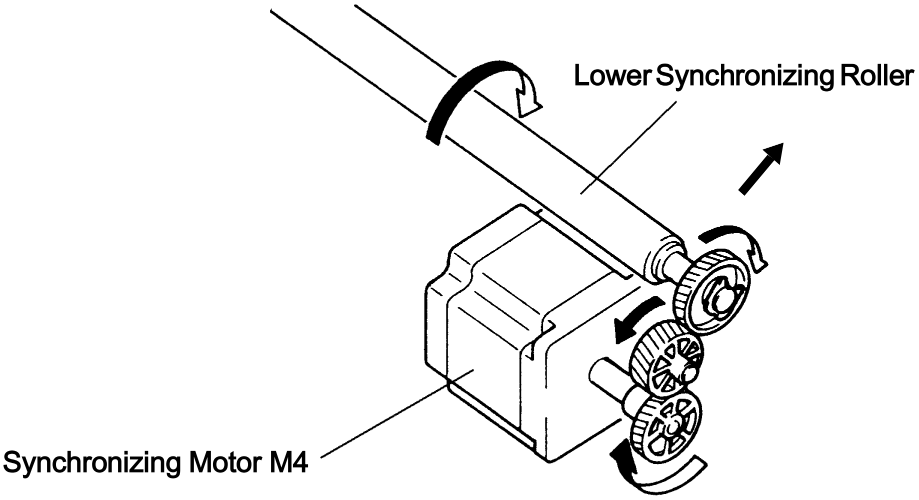
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC27	PJ2A-10A	H	L	19-M

	Control Signal	ON	OFF	WIRING DIAGRAM
M3	PJ16F-3~6	Pulse Output		48-O

1161SBM1604A

16-4. Synchronizing Roller Drive Mechanism

- The Upper Synchronizing Roller is driven by the Lower Synchronizing Roller.
- The Lower Synchronizing Roller is driven by Synchronizing Motor M4 through a gear train.

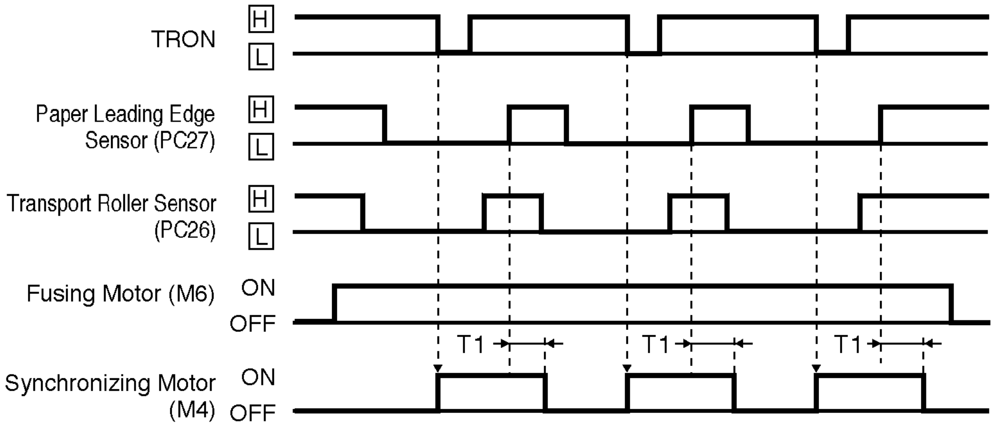


1075M131AA

1161SBM1605A

16-5. Synchronizing Roller Drive Control

- M4, a stepping motor, is controlled by energizing the four internal coils using pulse signals output through the control by Master Board PWB-A.



T1 : 87msec. (EP6001)
52msec. (EP8015)

1161T37MCA

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC27	PJ2A-10A	H	L	19-M

	Control Signal	ON	OFF	WIRING DIAGRAM
M4	PJ2A-2A~5A	Pulse Output		22-M

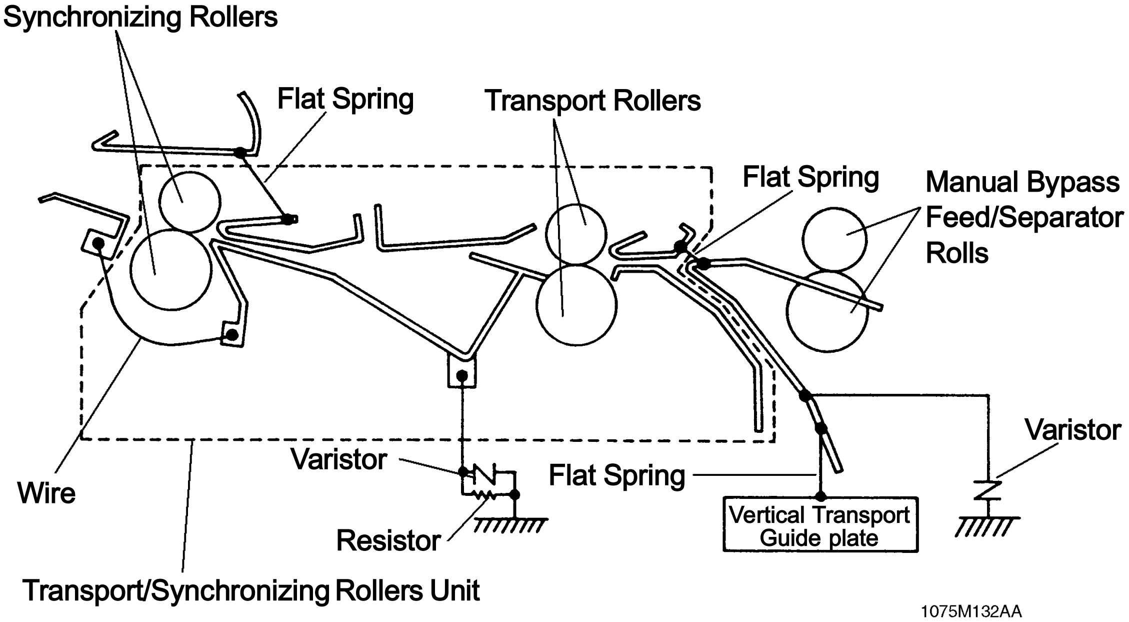
1161SBM1606A

16-6. Prevention of Low Image Density on Copy

During conditions of high humidity when the paper is damp, charges would tend to flow from the Image Transfer Corona through the paper and guide plates to the ground. This results in low image density on the copies. To prevent this from occurring, a plastic spacer is installed at the pivot of the Right Door and where the Transport/Synchronizing Rollers Unit is fitted.

If, however, the resistance with the ground is made infinity, the guide plates would build up charges and a spark can occur with other guide plates, resulting in a malfunction. To prevent this, an 82-megohm resistor and a varistor are connected to the guide plates. The Manual Bypass, Vertical Transport, Transport/Synchronizing Roller, and Pre-Image Transfer Guide Plates are connected by flat springs and a wire.

A varistor is connected to the Multi Bypass Guide Plate to protect the CPU from noise when the right door is opened.


Synchronizing Rollers
Flat Spring
Transport Rollers
Flat Spring
Manual Bypass Feed/Separator Rolls
Varistor
Varistor
Flat Spring
Wire
Resistor
Vertical Transport Guide plate
Transport/Synchronizing Rollers Unit

1075M132AA

17 IMAGE TRANSFER AND PAPER SEPARATION

Image Transfer

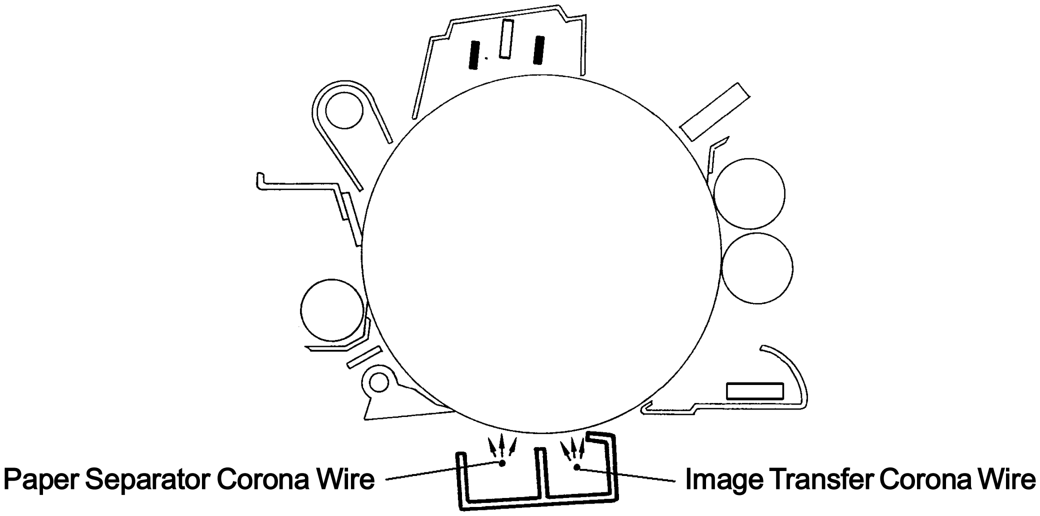
The Image Transfer Corona applies a DC negative corona emission to the underside of the paper thereby attracting the positively charged toner onto the surface of the paper to form a visible, developed image of the original.

Paper Separation

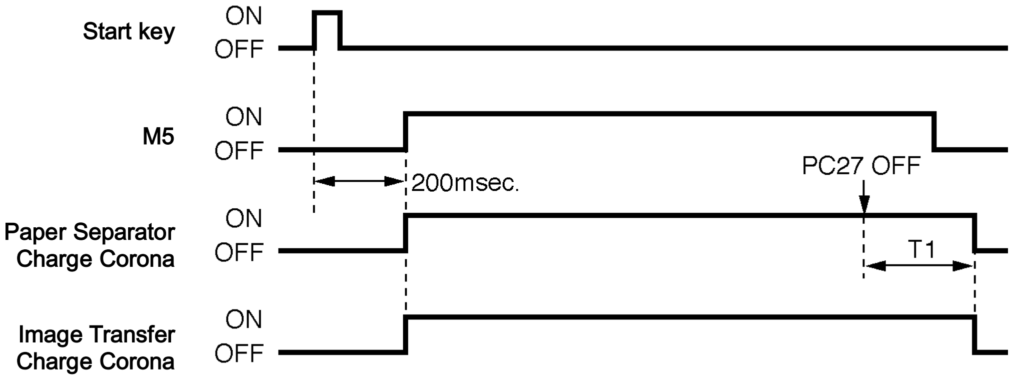
The Paper Separator Corona showers the underside of the paper with both positive and negative charges so that the paper can be easily separated from the PC Drum. In addition, two Paper Separator Fingers physically peel the paper off the surface of the PC Drum. (For details, see PAPER SEPARATOR FINGERS.)

The Image Transfer/Paper Separator Coronas Unit is provided with a Pre-Image Transfer Guide Plate that determines the angle at which the paper comes into contact with the PC Drum and keeps an optimum distance between the paper and the PC Drum so that the image may be properly transferred onto the paper.

- There is a mechanism provided that automatically cleans the corona wires at a given timing, thereby preventing uneven charging caused by a dirty wire.



1161M038AA



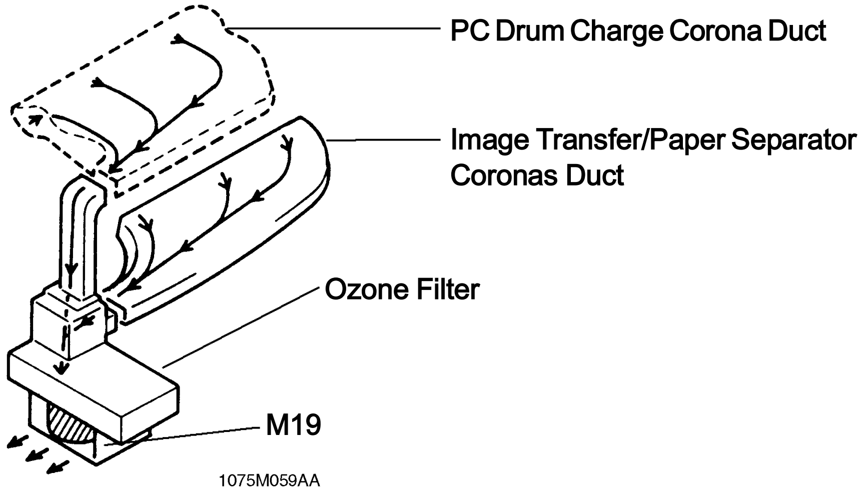
T1 : 332msec. (EP6001)
218msec. (EP8015)

	Control Signal	ON	OFF	WIRING DIAGRAM
HV2 I.T. Corona	PJ5A-1A	L	H	20-K
HV2 P.S. Corona	PJ5A-2A	L	H	20-K

1161SAM1701A

17-1. Ozone Filter

- Ozone Produced by the Image Transfer/Paper Separator Coronas is absorbed by the Ozone Filter from the air being drawn out of the copier by Ventilation Fan Motor M19.
- In this copier, this Ozone Filter absorbs ozone produced by not only the Image Transfer/Paper Separator Coronas but also the PC Drum Charge Corona.


PC Drum Charge Corona Duct
Image Transfer/Paper Separator Coronas Duct
Ozone Filter
M19
1075M059AA

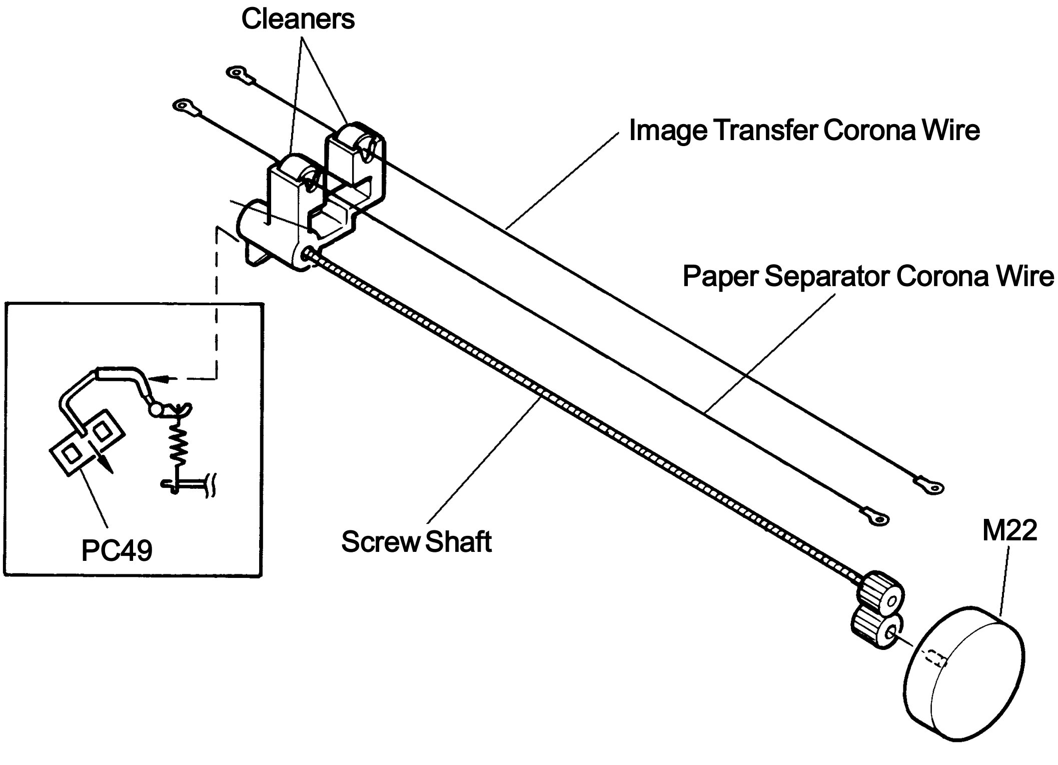
1161SBM1702A

17-2. Image Transfer/Paper Separator Corona Wires Cleaning Mechanism

The Image Transfer/Paper Separator Coronas are provided with a mechanism that automatically cleans its corona wires. It effectively removes from the wires any toner and dust particles which would otherwise cause uneven charging, white streaks on copies, and charge leak.

<Mechanism>

- When Image Transfer/Paper Separator Charge Wire Cleaning Motor M22 is energized, its drive is transmitted to the Screw Shaft. This in turn moves the two Cleaners mounted on the Screw Shaft.
- M22 is a two-phase stepping motor. The Cleaners are detected at their standby position (which is the reference position for the cleaning motion) by Transfer/Separator Wire Cleaner Home Position Sensor PC49.
- The Cleaners make one round trip per each cleaning cycle.

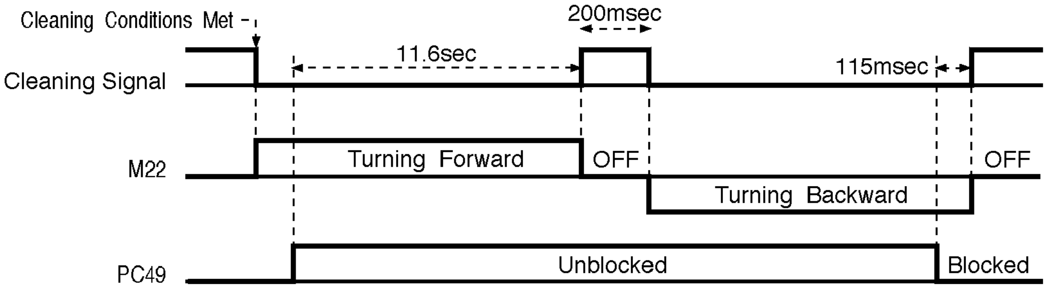


1075D075AB

<Control>

- The Image Transfer/Paper Separator corona wires are automatically cleaned under the following conditions. The cleaning function is, however, disabled if the ”Charge Wire Cleaning” function of ”System Input” available from the Tech. Rep. mode has been set to ”Off”.

(1) A period of 200 msec. has elapsed after Power Switch S1 has been turned ON.
(2) The number of copies made exceeds 2,000 after S1 has been turned ON and 10 minutes elapse after the last copy cycle has been completed.
(3) An Image Transfer/Paper Separator Coronas malfunction, which has been detected, is reset.
(4) A misfeed/malfunction, which has been detected, is reset with a sheet of paper remaining at the area near the Image Transfer/Paper Separator Corona.


Cleaning Conditions Met
200msec
11.6sec
115msec
Cleaning Signal
M22
Turning Forward
OFF
Turning Backward
OFF
PC49
Unblocked
Blocked

1161T23MCA

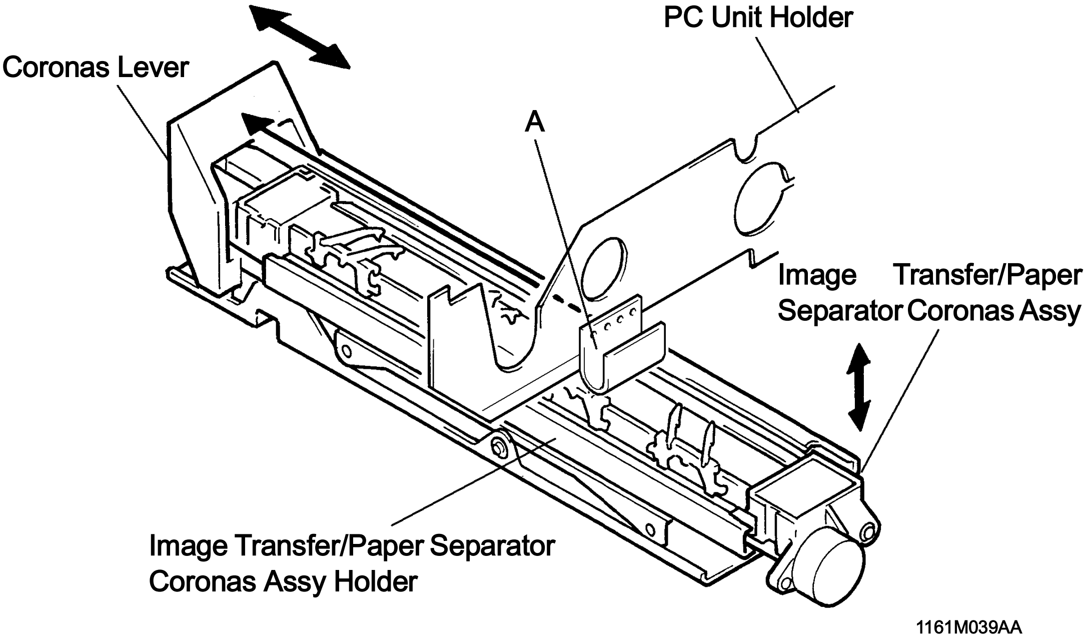
	Control Signal	Forward	Backward	WIRING DIAGRAM
M22	PJ22A-5B	Pulse Output		22-I

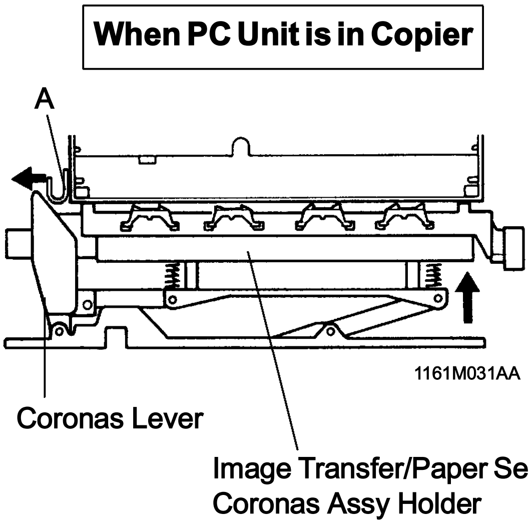
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC49	PJ5A-2B	H	L	19-N

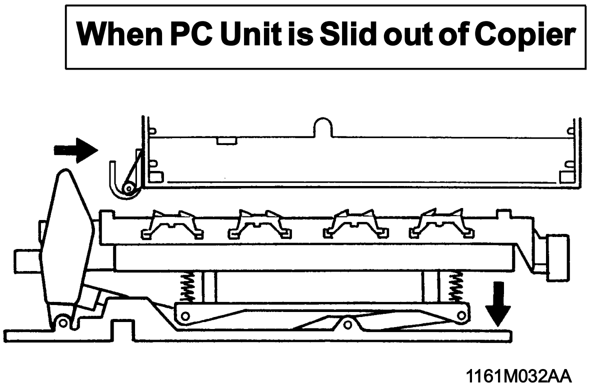
1161SBM1703A

17-3. Image Transfer/Paper Separator Coronas Assy Retracting Mechanism

- The Image Transfer/Paper Separator Coronas Assy Holder is designed to retract downward to prevent the coronas assy from contacting the PC Drum when the PC Unit is slid out of the copier.
- When the PC Unit is in the copier, lever A fitted to the PC Unit Holder pushes the Coronas Lever rearward. As a result, the Image Transfer/Paper Separator Coronas Assy Holder, which is connected to the Coronas Lever, is raised to be pressed against the PC Unit.
- When the PC Unit is slid out of the copier, lever A releases the Coronas Lever. This lowers the Image Transfer/Paper Separator Coronas Assy Holder, which is the retracted position of the Image Transfer/Paper Separator Coronas Assy.


PC Unit Holder
Coronas Lever
A
Image Transfer/Paper Separator Coronas Assy
Image Transfer/Paper Separator Coronas Assy Holder
1161M039AA


When PC Unit is in Copier
A
1161M031AA
Coronas Lever
Image Transfer/Paper Separator Coronas Assy Holder


When PC Unit is Slid out of Copier
1161M032AA

1161SBM1800A

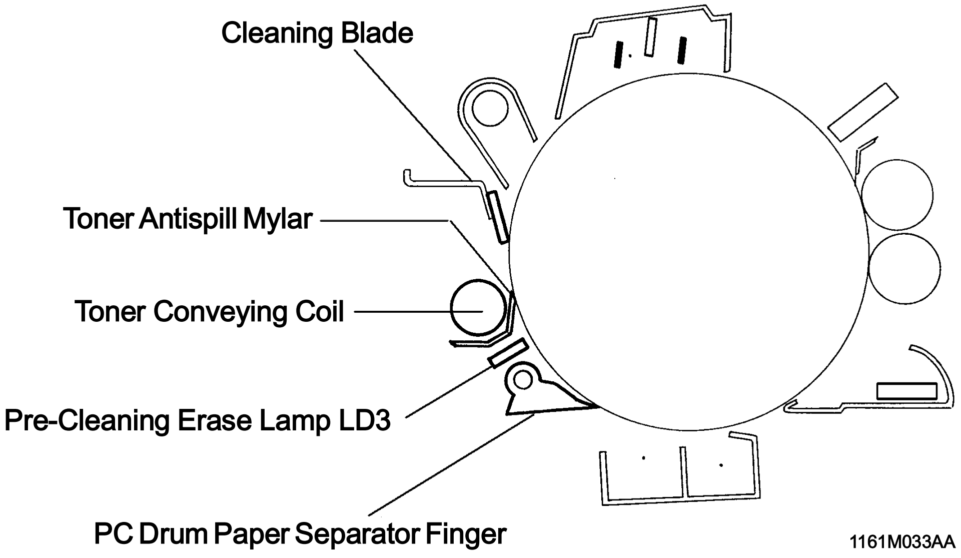
18 CLEANING UNIT

- The Cleaning Blade is pressed tightly against the surface of the PC Drum and scrapes off any toner remaining on the surface after image transfer and paper separation have been completed. The scraped-off toner falls into the Toner Conveying Coil and is conveyed by that Coil to the Toner Chute and into the Toner Collecting Bottle at the back of the copier.
- The Blade Tension Spring ensures that the Cleaning Blade is pressed against the PC Drum surface at a given constant pressure.

- The Toner Antispill Mylar prevents the scraped-off toner from falling onto the areas inside the copier, ensuring all scraped-off toner falls on the Toner Conveying Coil.

- The back surface of the Cleaning Blade has the toner applied when setting up the copier and that accumulated during a number of copy cycles. This toner can stick again to the areas on the surface of the PC Drum where there remains surface potential, adversely affecting the copy image. This copier is equipped with Pre-Cleaning Erase Lamp LD3 located immediately under the Cleaning Unit. Light from LD3 striking the surface of the PC Drum reduces surface potential, thereby preventing toner accumulated on the back side of the Cleaning Blade from sticking to the surface of the PC Drum.

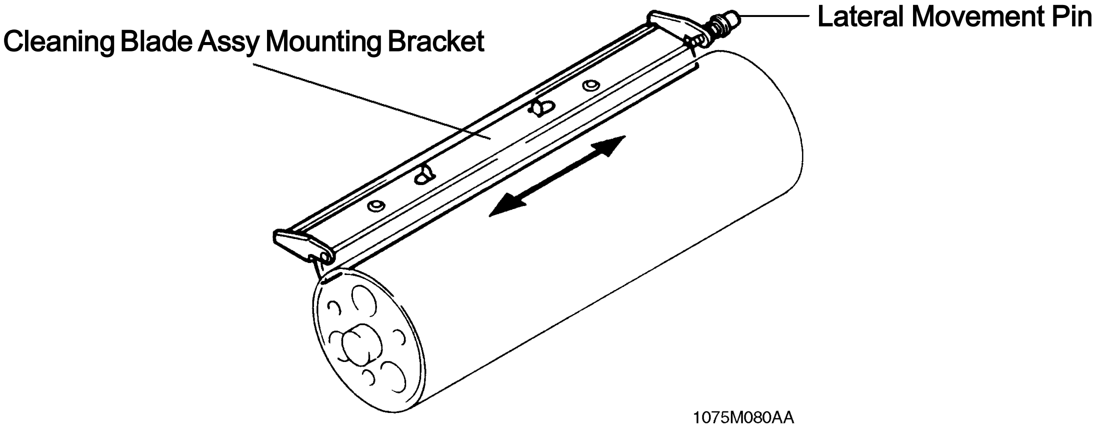
- The PC Drum Paper Separator Fingers join forces with the Paper Separator Corona to positively separate the paper from the surface of the PC Drum.

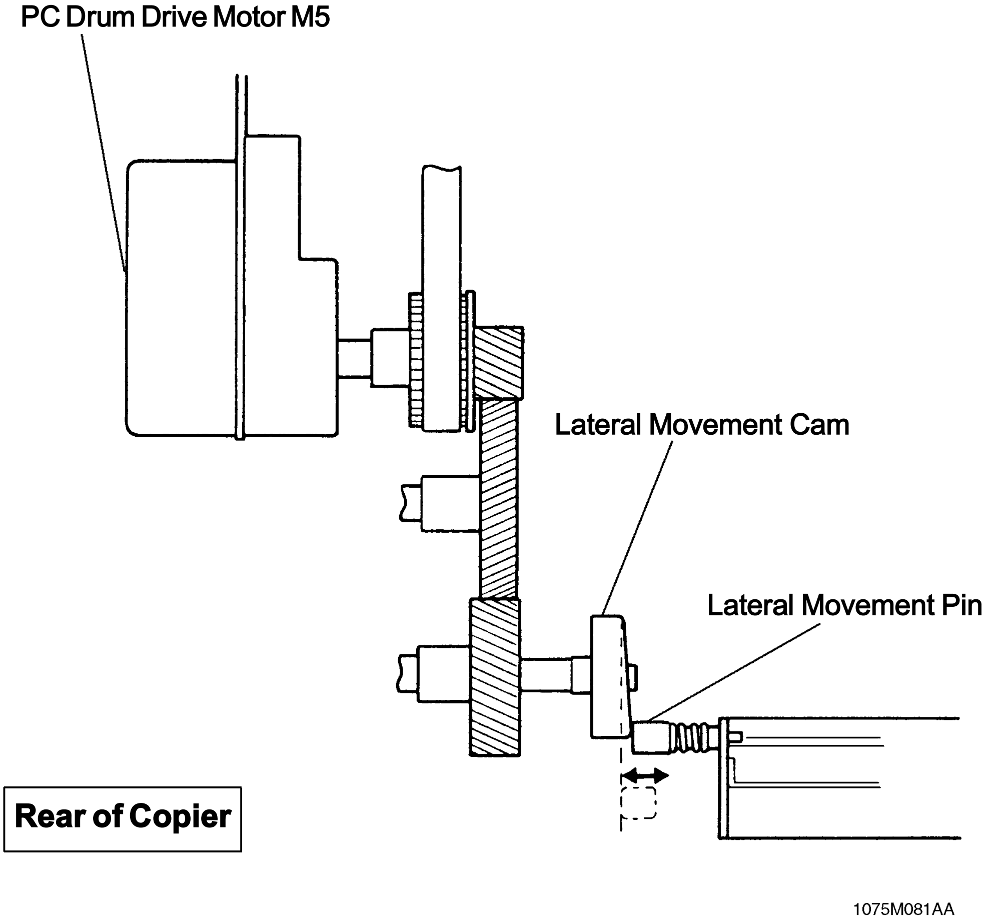


1161SBM1801A

18-1. Cleaning Blade Moving Mechanism

- The Cleaning Blade is moved back and forth while the PC Drum is turning to ensure that all residual toner is scraped cleanly off the surface of the PC Drum, thereby preventing the PC Drum as well as Cleaning Blade from deteriorating.
- Drive from PC Drum Drive Motor M5 turns the Lateral Movement Cam. The Lateral Movement Pin on the end of the Cleaning Blade Assy Mounting Bracket is pushed by the cam, which results in the Cleaning Blade being moved back and forth.


Lateral Movement Pin
Cleaning Blade Assy Mounting Bracket
1075M080AA

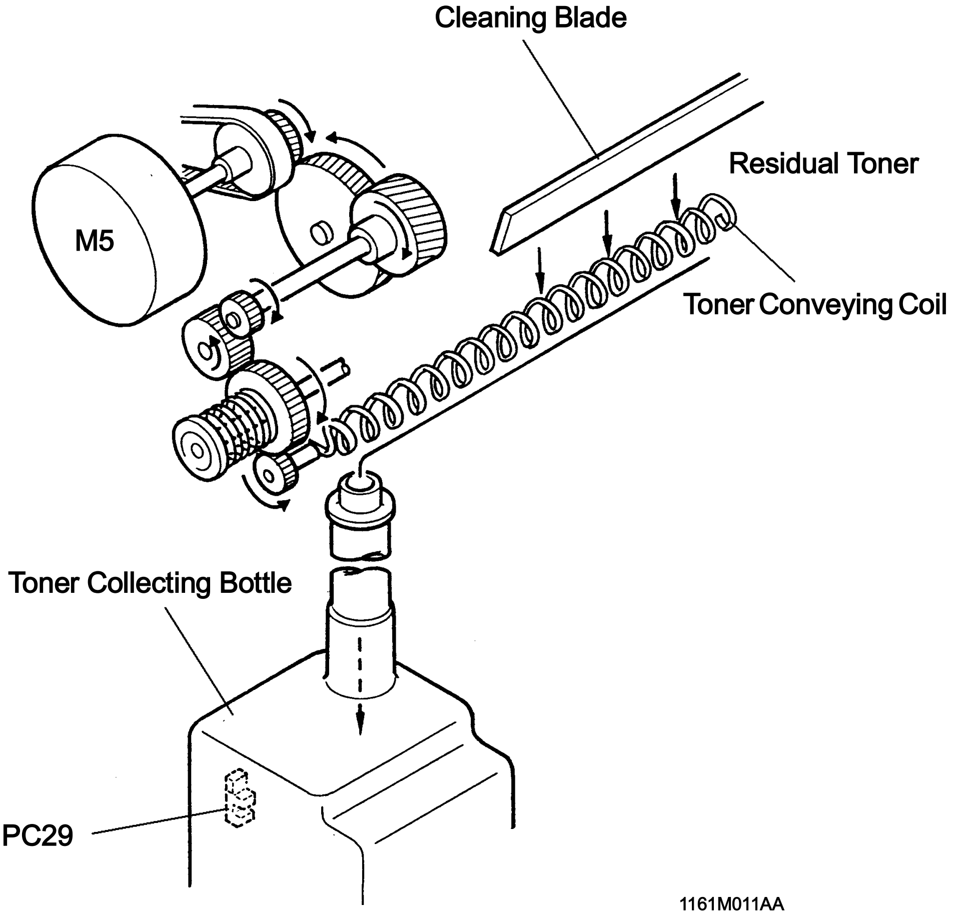

PC Drum Drive Motor M5
Lateral Movement Cam
Lateral Movement Pin
Rear of Copier
1075M081AA

1161SBM1802A

18-2. Toner Conveying/Collecting Mechanism

- The toner which has been scraped off the surface of the PC Drum by the Cleaning Blade is conveyed to the rear of the copier by the Toner Conveying Coil and dropped into the Toner Collecting Bottle through the Toner Chute.
- The Toner Conveying Coil is driven by PC Drum Drive Motor M5.

- The Toner Collecting Bottle has a capacity of approx. 13 liters.
- Toner Collecting Bottle Set Sensor PC29 is provided to detect that the Toner Collecting Bottle is installed so that the copier can inhibit the initiation of a copy cycle if the Toner Collecting Bottle is missing.


Cleaning Blade
Residual Toner
M5
Toner Conveying Coil
Toner Collecting Bottle
PC29

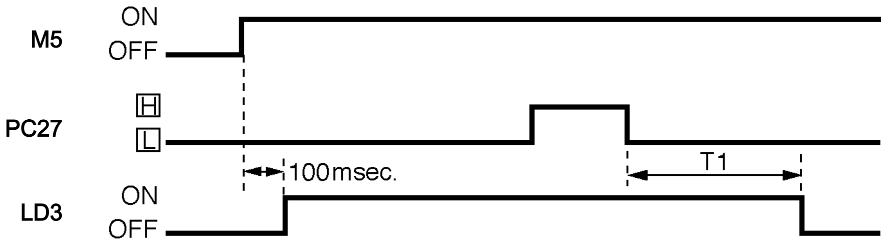
1161M011AA

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC29	PJ11F-2	H	L	11-C

1161SBM1803A

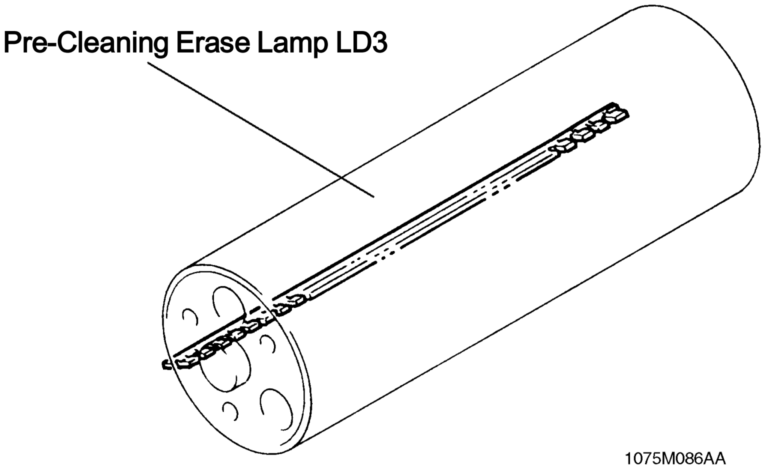
18-3. Pre-Cleaning Erase Lamp LD3 ON/OFF Control

- Pre-Cleaning Erase Lamp LD3 is made up of 64 LEDs.
- The ON/OFF timing of LD3 is in synchronism with that of Pre-Image Transfer Erase Lamp LD2.
- LD3 is turned ON and OFF by the signal output from Master Board PWB-A.



T1 : 713msec. (EP6001)
468msec. (EP8015)

1161T25MCA



1075M086AA

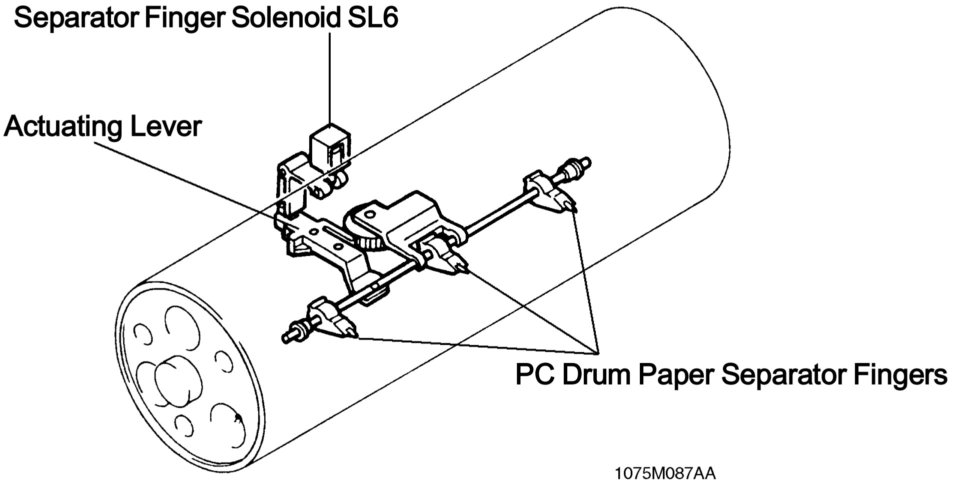
	Control Signal	ON	OFF	WIRING DIAGRAM
LD3	PJ23A-8A	L	H	12-J

1161SBM1804A

18-4. PC Drum Paper Separator Fingers Moving Mechanism

<Mechanism>

- The PC Drum Paper Separator Fingers, together with the Paper Separator Corona, ensure good separation of paper from the PC Drum after image transfer has taken place.
- The Paper Separator Fingers are made of metal with their tips ground to minimize damage to the surface of the PC Drum.
- There are three Paper Separator Fingers provided to cope with any paper size.
- The Paper Separator Fingers are pressed against the surface of the PC Drum to positively separate paper from it. Further, to minimize damage to the PC Drum, the Fingers are moved back and forth.

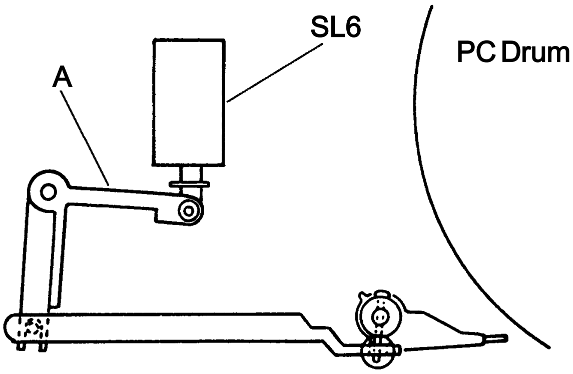

Separator Finger Solenoid SL6
Actuating Lever
PC Drum Paper Separator Fingers
1075M087AA

	Control Signal	ON	OFF	WIRING DIAGRAM
SL6	PJ23A-7A	L	H	3-B

= Finger Pressing Motion =

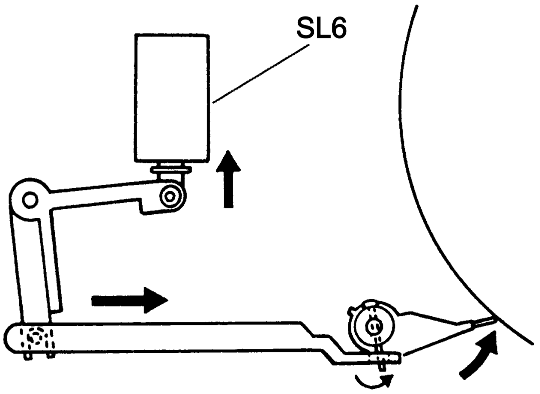
- The PC Drum Paper Separator Fingers are pressed against the surface of the PC Drum by Separator Finger Solenoid SL6 as it is energized at a timing to separate paper from the surface of the PC Drum.
- When SL6 is energized, part A of the Actuating Lever is raised. This moves the lower part of the lever in the direction of the arrow. Since the Finger Shaft is connected to the Actuating Lever at B, the Paper Separator Fingers are turned counterclockwise. This brings the fingers into contact with the surface of the PC Drum. The pressure the Paper Separator Fingers exert against the surface of the PC Drum is maintained at approx. 1g.
- When SL6 is deenergized, the Actuating Lever is lowered by the tension of the spring. This results in the Finger Shaft being turned clockwise, causing the Paper Separator Fingers to be moved away from the surface of the PC Drum.

When Separator Finger Solenoid SL6 is deenergized



1075M088AA

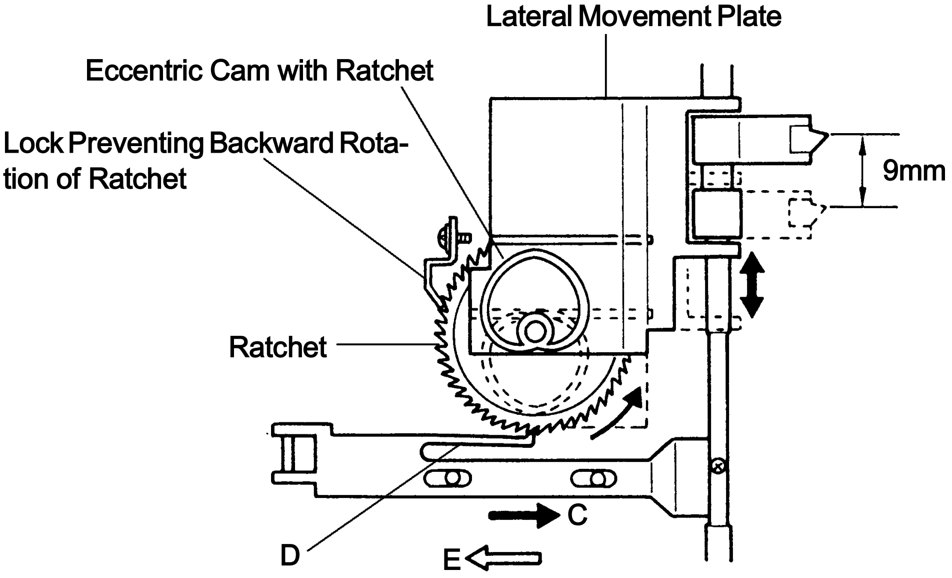
When Separator Finger Solenoid SL6 is energized



1075M089AA

= Finger Back-and-Forth Motion =

- The PC Drum Paper Separator Fingers are moved in the crosswise direction by the eccentric cam with ratchet when Separator Finger Solenoid SL6 is operated.
- When SL6 is energized, the Actuating Lever is moved in the direction of arrow C. At this time, pawl D moves over the ratchet one tooth, which is a given amount of rotary motion of the eccentric cam. When SL6 is deenergized, the Actuating Lever is returned to the original position (in the direction of arrow E) by the tension of the spring. As a result, pawl D moves over the ratchet one tooth back. (The ratchet is not turned backward as it is provided with a lock that prevents the ratchet from turning backward.)
- According to the profile of the eccentric cam, the Lateral Movement Plate is moved as the eccentric cam turns. This results in the Finger Shaft being moved back and forth over an approx. 9 mm distance. (One complete turn of the eccentric cam is equivalent to one round trip of the fingers.)

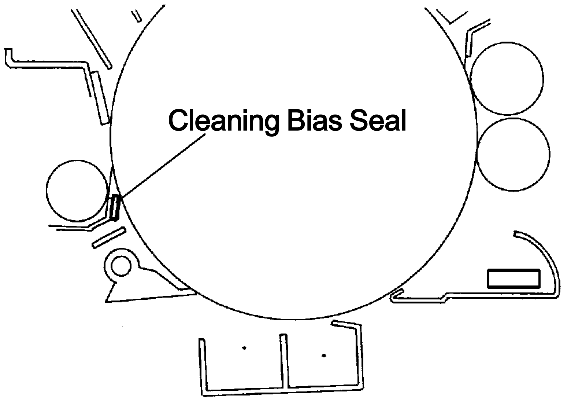

Lateral Movement Plate
Eccentric Cam with Ratchet
Lock Preventing Backward Rotation of Ratchet
9mm
Ratchet
C
D
E

1075M090AA

1161SBM1805A

18-5. Cleaning Bias (Option)

- A Cleaning Bias Seal can be installed optionally.
- It is installed according to the type of copy paper the user uses.
- It must be installed if the user uses acid paper which contains a lot of talc.
- A bias voltage of DC+ is applied to the Cleaning Bias Seal by Seal Bias HV3, thereby attracting talc from the surface of the PC Drum.



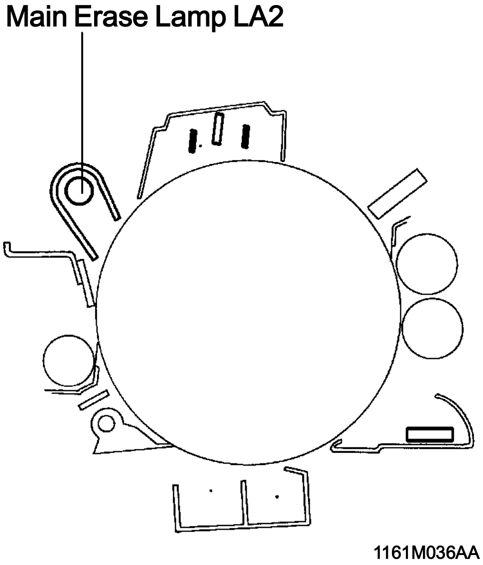
1161M035AA

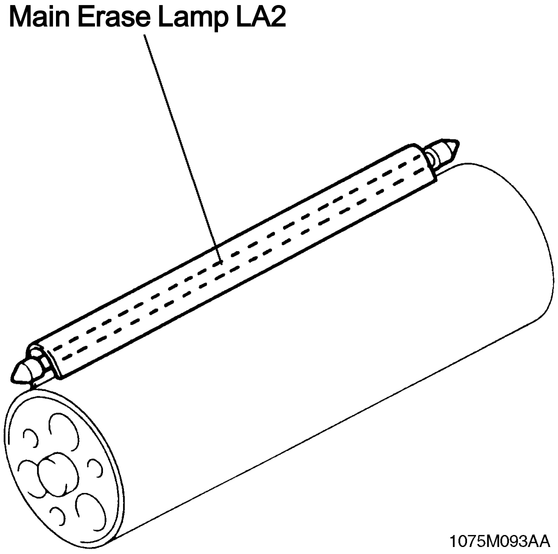
	Control Signal	ON	OFF	WIRING DIAGRAM
HV3	PJ23A-2B	L	H	15-L

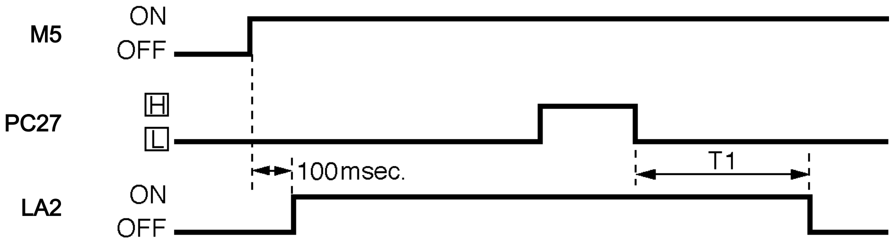
1161SBM1900A

19 MAIN ERASE LAMP

- Main Erase Lamp LA2 neutralizes any surface potential remaining on the surface of the PC Drum after cleaning.
- It consists of nine incandescent tungsten-filament lamps connected in a series inside a glass tube.


Main Erase Lamp LA2
1161M036AA


Main Erase Lamp LA2
1075M093AA



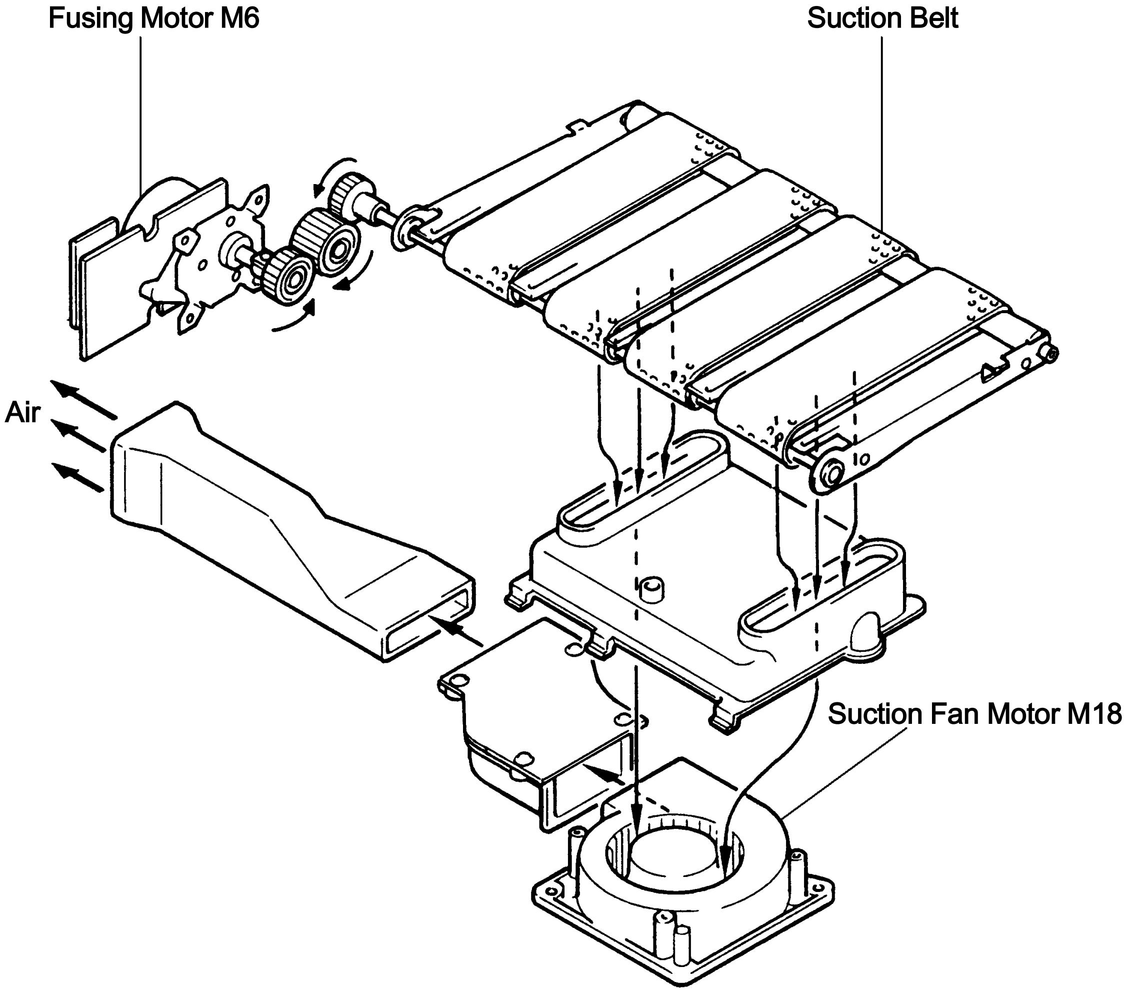
T1 : 713msec. (EP6001)
468msec. (EP8015)

	Control Signal	ON	OFF	WIRING DIAGRAM
LA2	PJ23A-6A	L	H	12-J

1161SBM2000A

20 TRANSPORT SECTION

- Rotation of Suction Fan Motor M18 results in the paper separated from the PC Drum being drawn onto the turning Suction Belts. As a result, the paper is smoothly carried to the Fusing Unit.
- The Suction Belts are turned by the Suction Belt Drive Roller which is driven by Fusing Motor M6.
- Four rubber belts are used as the Suction Belts. There are small holes in each belt to enhance the drawing power of M18. Further, each belt has a rough surface which prevents slippage during paper transport.



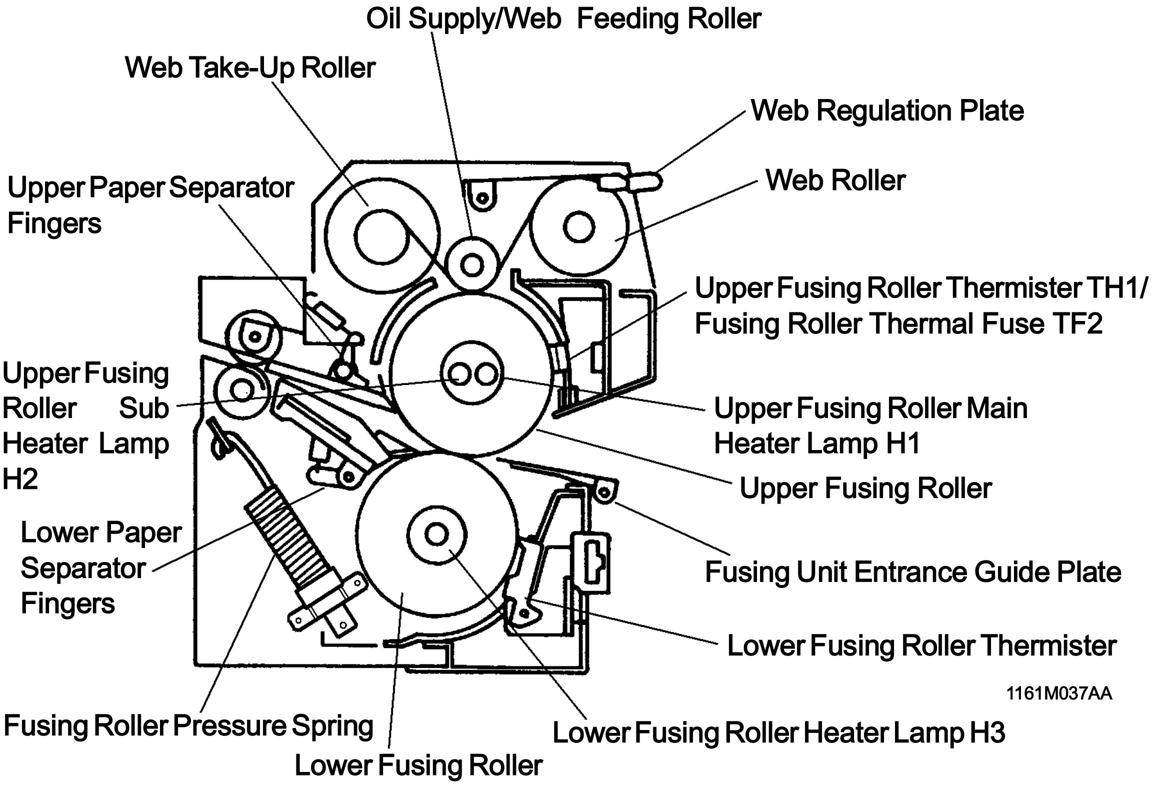
1075M094AA

	Control Signal	Half Speed	Full Speed	WIRING DIAGRAM
M18	PJ3A-3A	H	L	19-O

1161SBM2100A

21 FUSING UNIT

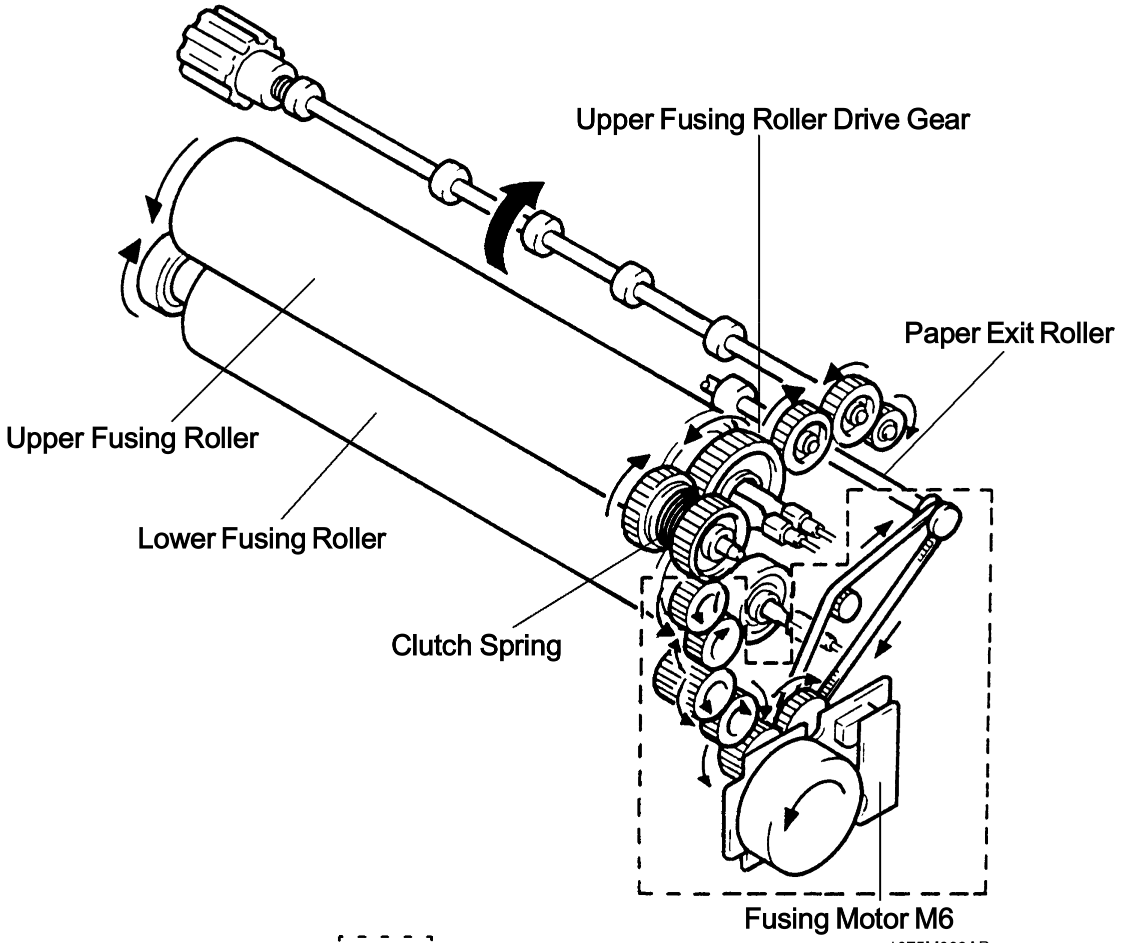
- The Fusing Unit fixes permanently the developed image to the paper by applying heat to the toner and paper. A given pressure is also applied between the Upper and Lower Fusing Rollers, thereby providing a certain width of area of contact between the two rollers. This offers a longer fusing time and, at the same time, helps toner to be fused into the paper easily.
- The Upper Fusing Roller is provided with two heater lamps - Main Heater Lamp H1 and Sub Heater Lamp H2. This enables a warming-up time of less than 5 min. (at an ambient temperature of 20°C and with rated power).
- The Lower Fusing Roller is also provided with a heater lamp (H3) which heats the roller from the inside to ensure stabilized fusing performance. It also minimizes wrinkles and skewed feed that would occur due to variations in the roller's surface temperature during the early period after the power has been turned ON.


Oil Supply/Web Feeding Roller
Web Take-Up Roller
Web Regulation Plate
Upper Paper Separator Fingers
Web Roller
Upper Fusing Roller Thermister TH1/ Fusing Roller Thermal Fuse TF2
Upper Fusing Roller Sub Heater Lamp H2
Upper Fusing Roller Main Heater Lamp H1
Upper Fusing Roller
Lower Paper Separator Fingers
Fusing Unit Entrance Guide Plate
Lower Fusing Roller Thermister
1161M037AA
Fusing Roller Pressure Spring
Lower Fusing Roller Heater Lamp H3
Lower Fusing Roller

1161SBM2101A

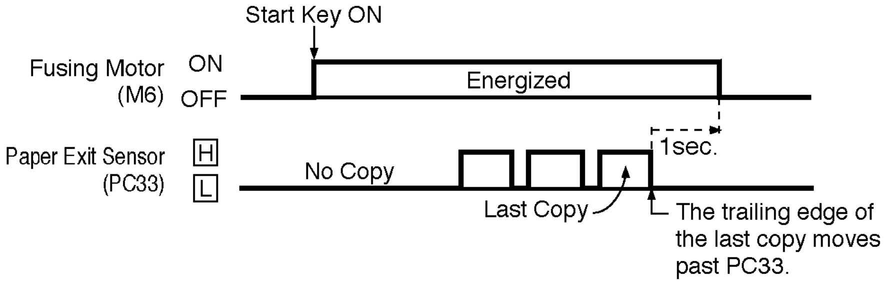
21-1. Drive for the Fusing Unit

- The Fusing Unit is driven by Fusing Motor M6 fitted to the Fusing Drive Unit in the rear of the copier.


Upper Fusing Roller Drive Gear
Paper Exit Roller
Upper Fusing Roller
Lower Fusing Roller
Clutch Spring
Fusing Motor M6

1075M009AB

The gears enclosed by ⬚ are on the copier frame.



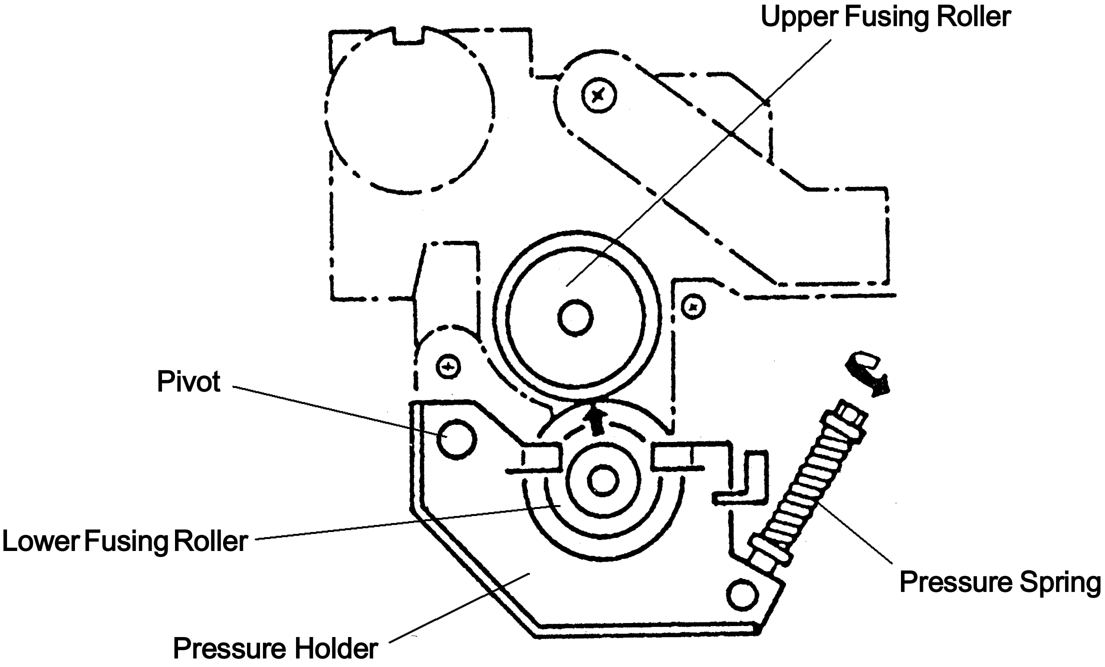
1161T26MCA

	Control Signal	ON	OFF	WIRING DIAGRAM
M6	PJ3A-1A	L	H	2-B

1161SBM2102A

21-2. Fusing Rollers Pressure Mechanism

- To ensure that there is a certain width of area of contact between the Upper and Lower Fusing Rollers, a pressure spring is installed to the front and rear Pressure Holders.
- The Lower Fusing Roller is held pressed against the Upper Fusing Roller at all times. It is released only when servicing the copier. Pressure can be adjusted with the Pressure Adjusting Screws at the front and rear. (The copier is shipped with the Lower Fusing Roller released from the Upper Fusing Roller.)
- The pressure between the two rollers is approx. 100 kg which is reached when the Pressure Adjusting Screws are fully tightened.



1140M054

1161SBM2103A

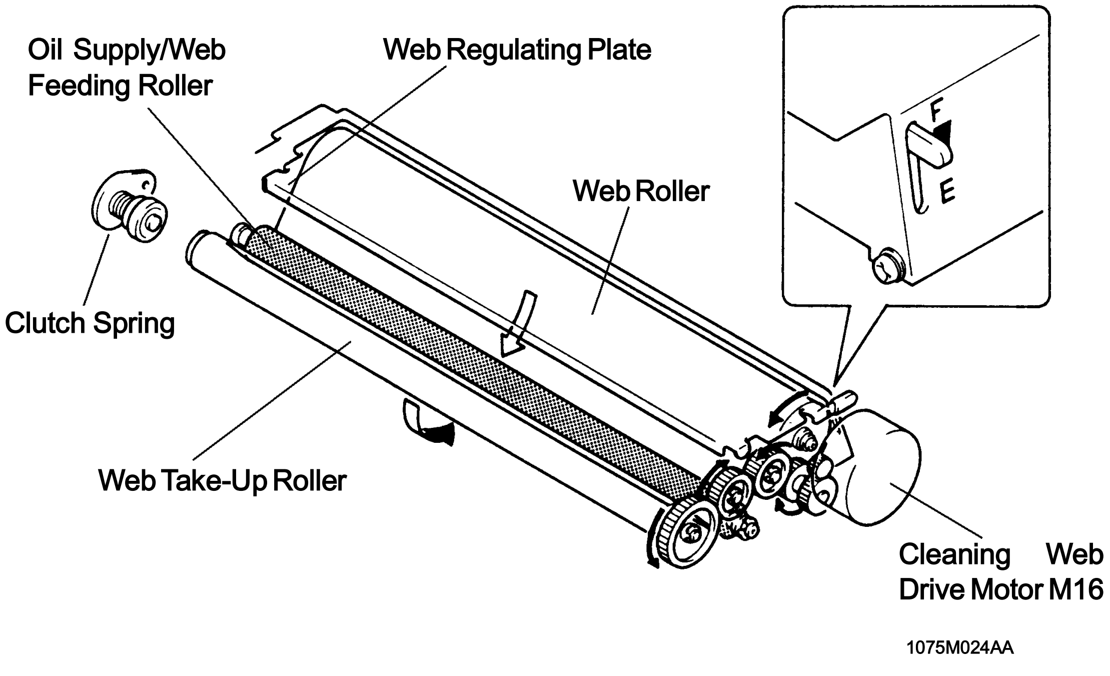
21-3. Oil Application Mechanism

- The silicone oil is applied to the surface of the Upper Fusing Roller when the Cleaning Web being fed off the Web Roller is pressed tightly up against the Upper Fusing Roller by the Oil Supply/Web Feeding Roller. The surface of the Upper Fusing Roller is cleaned at the same time when silicone oil is applied to it.
- The silicone oil is then transferred onto the Lower Fusing Roller. The oil prevents copies having offsets from being produced and helps the paper be stripped off the surface of the Upper or Lower Fusing Roller.
- The Oil Supply/Web Feeding Roller is made of foam rubber and is thus elastic. This provides a wider width of area of contact between this roller and the Upper Fusing Roller, enhancing cleaning and oil application efficiency. This roller also functions to feed the Cleaning Web as it is being taken up by the Web Take-Up Roller.

1161SBM2104A

21-4. Cleaning Web Take-Up Mechanism

- The Cleaning Web wound around the Web Roller is taken up by the Web Take-Up Roller which is driven by Cleaning Web Drive Motor M16.
- M16 is turned about one turn in every 7 to 14 copies made to take up the Cleaning Web. (*)
  - * The length of the Cleaning Web taken up per one revolution of M16 varies depending on the amount of Cleaning Web which has already been taken up. That is, in the beginnings of a new roll of Cleaning Web, a shorter length of web is taken up per one revolution of M16, as there is a very little amount of web taken up by the Web Take-Up Roller. The more the web is taken up, the longer the length of web taken up. The copier therefore refers to the count of the "Web Roller" counter and turns M16 one turn, in the beginnings, for every 7 copies made and, at the last stage, for every 14 copies made, thereby ensuring that a given amount of web is taken up for each copy.
- The Web Take-Up Roller Shaft is provided with a Clutch Spring that prevents the roller from turning backward, thereby preventing the Cleaning Web from developing slack or wrinkling during take-up.
- On the right side at the front of the Fusing Unit, there is a gauge provided showing an approximate amount of Cleaning Web still available for use. It eliminates the need of removing the Cleaning Web Assy to check for the amount of web.



1075M024AA

	Control Signal	ON	OFF	WIRING DIAGRAM
M16	PJ22A-6B	L	H	2-E

1161SBM2105A

21-5. Fusing Temperature Control

- The Fusing Unit is provided with three heater lamps, each turning ON to provide fusing temperature control at a particular timing so that power consumption can be minimized.

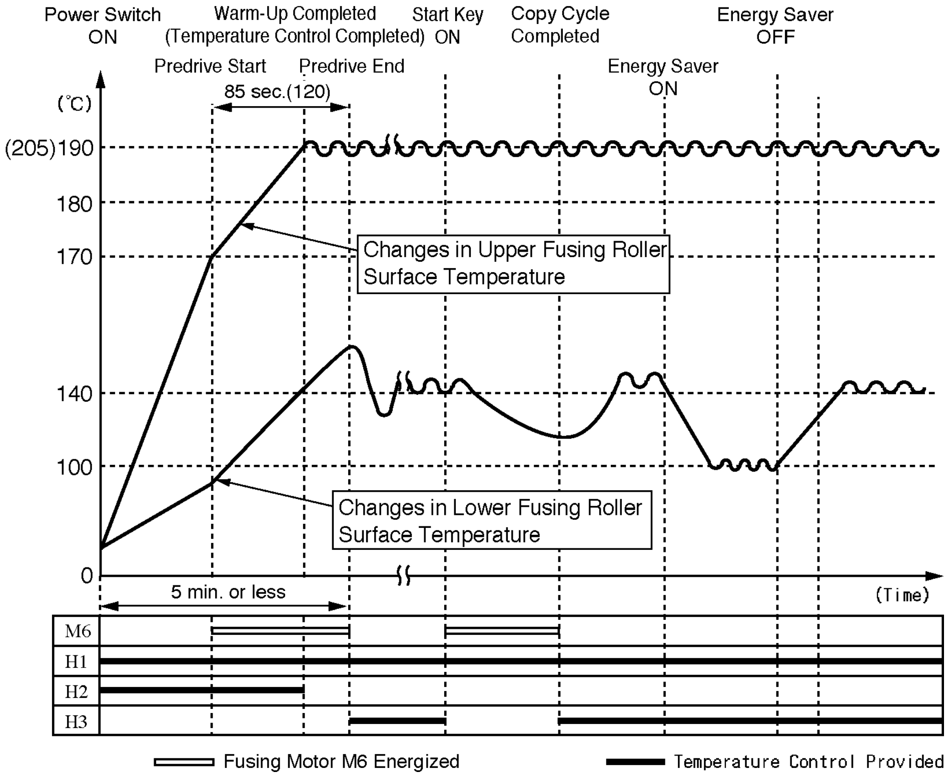
Part Name	Symbol	Function	Controlled Temperature
Upper Fusing Roller Main Heater Lamp	H1	Turns ON during the warming-up cycle, a copy cycle, and in the standby state following the completion of warm-up. (The lamp provides temperature control at all times.)	190°C (EP8015: 205°C)
Upper Fusing Roller Sub Heater Lamp	H2	Turns ON during the warming-up cycle.	
Lower Fusing Roller Heater Lamp	H3	Turns ON in the standby state following the completion of warm-up. (For EP8015, it turns ON also during the warming-up cycle.)	140°C

* During the Energy Saver mode, the Lower Fusing Roller temperature is controlled at 100°C in stead of the normal 140°C, while the Upper Fusing Roller temperature is controlled at 190°C (205°C for EP8015) as in the normal timing.

* “Temperature control” refers to the process of turning ON and OFF the heater lamps to arrive at a predetermined temperature.

* “Temperature control completed” means the predetermined temperature has been reached.

◆ **Example:** The copier is turned ON when the Upper and Lower Fusing Rollers are cool in the morning and a copy cycle is run following the completion of warm-up.



1161M046CA

<Temperature Control>

- Upper Fusing Roller Thermistor TH1 and Lower Fusing Roller Thermistor TH2 detect the surface temperatures of the corresponding rollers. They provide analog voltage inputs to Master Board PWB-A for the control of fusing temperature.

Detection of Abnormally High Temperature

When TH1 detects an abnormally high temperature (225°C or higher), PWB-A outputs a signal to turn OFF Main Relay RY1, thus cutting off power to the heater lamps.

	Control Signal	ON	OFF	WIRING DIAGRAM
H1 (SSR1)	PJ3A-8A	L	H	3-E
H2 (SSR2)	PJ3A-2B	L	H	3-F
H3 (SSR3)	PJ3A-3B	L	H	3-F

	Control Signal	Low Temp. ↔ High Temp.	WIRING DIAGRAM
TH1	PJ21A-3	Analog Input	3-C
TH2	PJ21A-2	Analog Input	3-D

1161SBM2106A

21-6. CPM Control

- The CPM (copies/minute) control is provided to keep good fusing performance even in multi-copy cycles and with the system power sourced from a single power outlet.

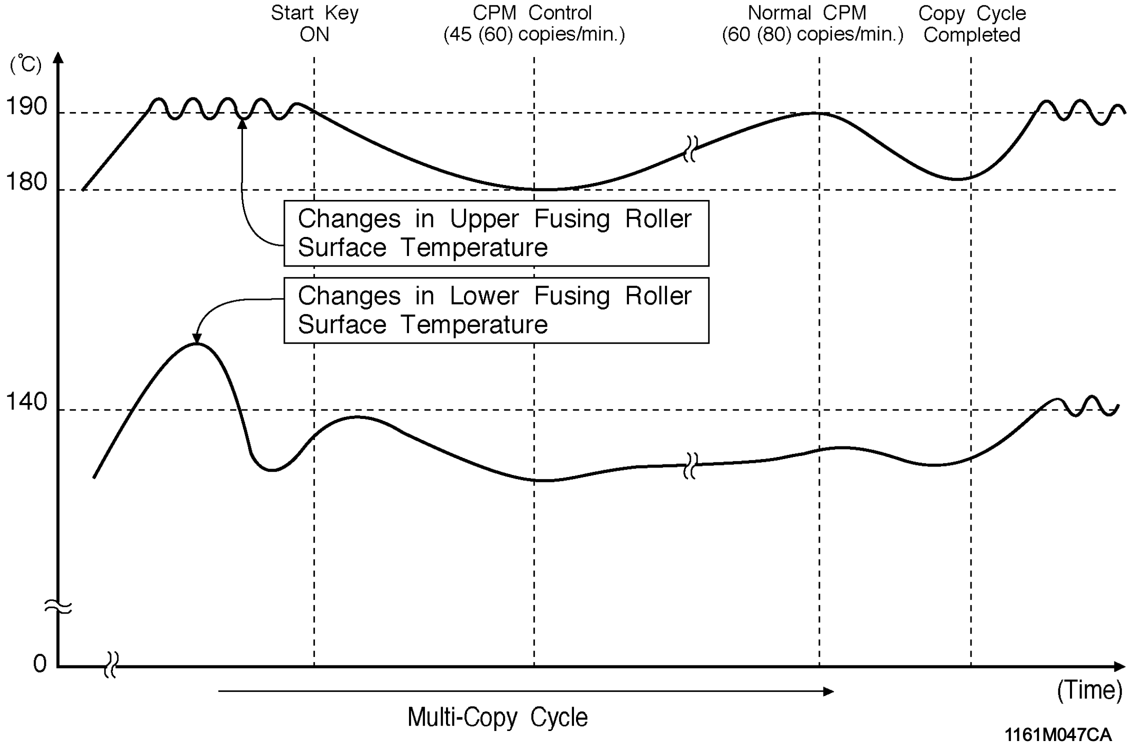
<What is CPM Control?>

- As noted earlier, only Upper Fusing Roller Main Heater Lamp H1 is ON during a copy cycle. Because of that, the Fusing Roller surface temperature goes down in a multi-copy cycle, resulting in degraded fusing performance. The copier therefore estimates the fusing performance based on the Fusing Roller surface temperature and, when the fusing performance is considered to be degraded, it decreases the CPM by 25% in an attempt to recover good fusing performance.
  (When the CPM is decreased, it provides a greater interval between sheets of paper, which gives time for the Fusing Roller surface temperature to increase. This recovers the fusing performance. When good fusing performance is recovered, the copier resumes the normal CPM.)

<CPM Control>

- When the normal CPM is 60 (80) copies/min., for example, and when the copier determines that fusing performance has been degraded, it reduces the CPM by 25% to 45 (60) copies/min.
- During the CPM control, the copier provides a greater interval between scan motions and between sheets of paper, thereby giving the Fusing Roller time to restore the temperature. (The system speed is not varied.)
- The CPM control can be activated if a multi-copy cycle is run immediately after the power has been turned ON in the morning (when the Fusing Rollers remain cool). In times other than early morning, however, the Lower Fusing Roller is heated by Lower Fusing Roller Heater Lamp H3 from the inside and, even with a multi-copy cycle, the CPM control is not readily activated. (For paper with a large weight and size, however, the CPM control can be activated even at times other than early morning.)

◆ Multi-Copy Cycle Immediately After Warm-up in Early Morning (normal CPM: 60 (80))

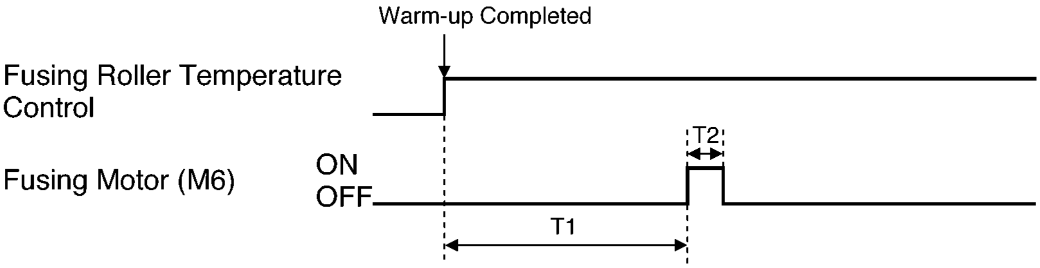


1161M047CA

1161SBM2107A

21-7. Mechanism and Control of Fusing Roller Small-Amount Turning

- If the Upper and Lower Fusing Rollers are kept in the temperature-controlled state for more than a given period of time, the areas of the two rollers in contact with each other are deformed by heat and pressure. To prevent this situation, the rollers are automatically driven for a given period of time to change the areas of the rollers in contact with each other.



Warm-up Completed
Fusing Roller Temperature Control
Fusing Motor (M6)
ON
OFF
T2
T1

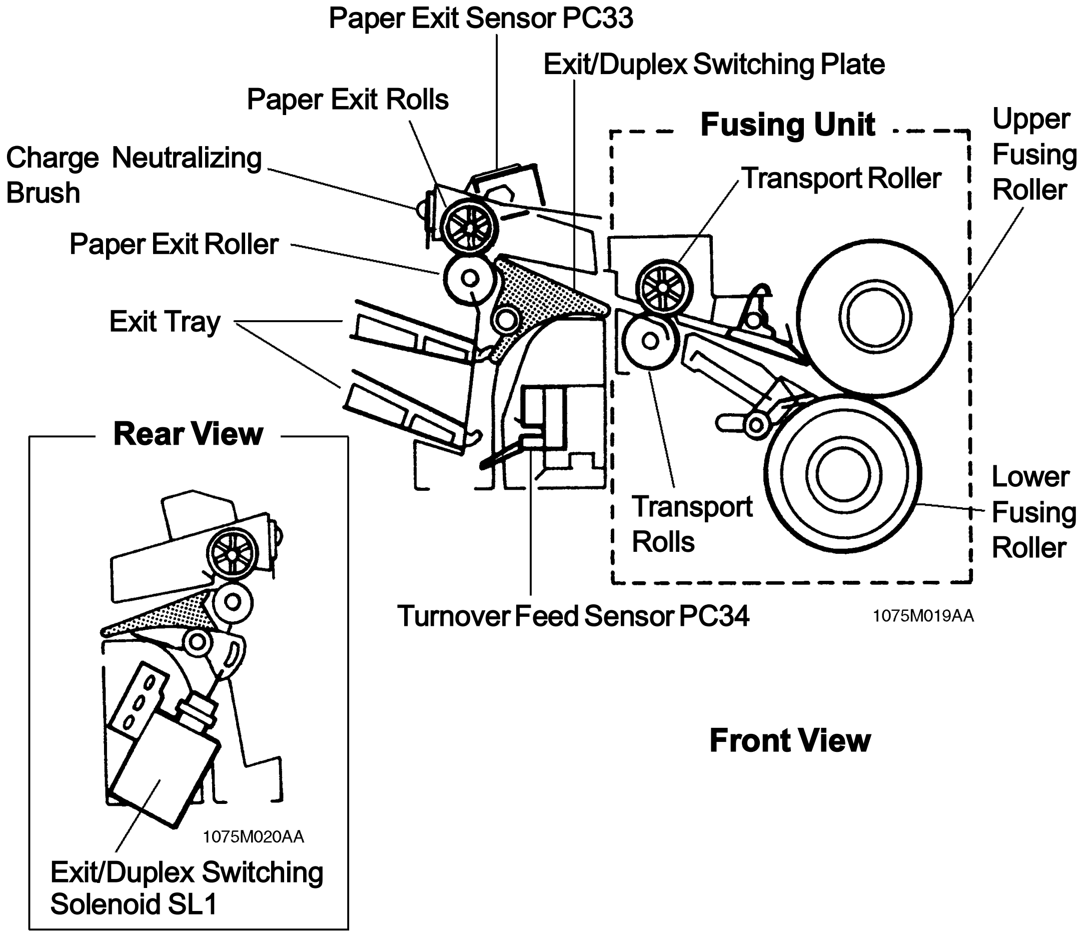
EP6001	T1: 240 min	T2: 64 ms
EP8015	T1: 55 min	T2: 140 ms

1161T40MCA

22 EXIT/DUPLEX SWITCHING UNIT

- The Exit/Duplex Switching Unit switches the paper path to feed the copy:

① Out onto the Exit Tray; or,
② Down into the Duplex Unit.

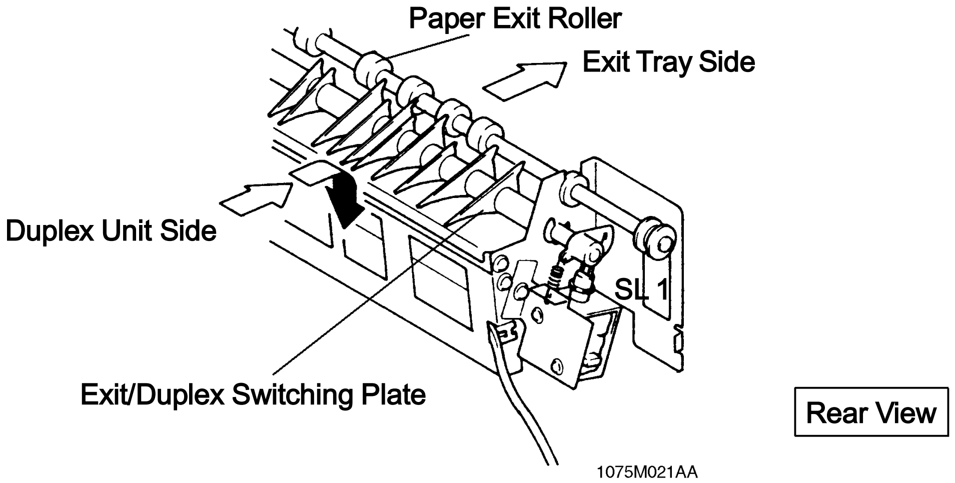

Paper Exit Sensor PC33
Exit/Duplex Switching Plate
Paper Exit Rolls
Fusing Unit
Upper Fusing Roller
Charge Neutralizing Brush
Transport Roller
Paper Exit Roller
Exit Tray
Rear View
Transport Rolls
Lower Fusing Roller
Turnover Feed Sensor PC34
1075M019AA
Front View
1075M020AA
Exit/Duplex Switching Solenoid SL1

1161SBM2201A

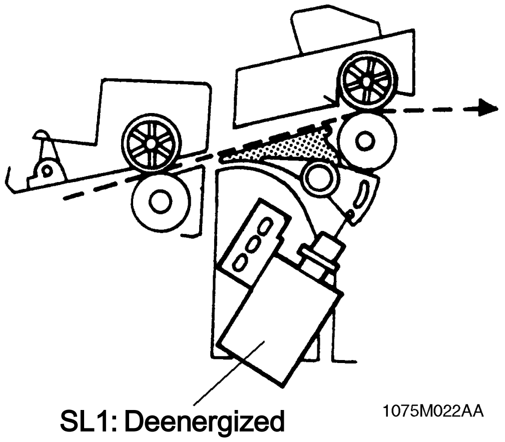
22-1. Exit/Duplex Switching Mechanism

<Overview>

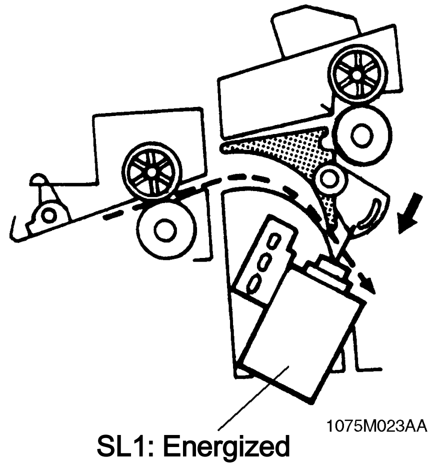
- Exit/Duplex Switching Solenoid SL1 is energized or deenergized to operate the Exit/Duplex Switching Plate so that the copy is fed either out onto the Exit Tray or down into the Duplex Unit.


Paper Exit Roller
Exit Tray Side
Duplex Unit Side
SL1
Exit/Duplex Switching Plate
Rear View
1075M021AA

<SL1 is Deenergized: Feeding Copy onto Exit Tray>


SL1: Deenergized
1075M022AA

<SL1 is Energized: Feeding Copy into Duplex Unit>


SL1: Energized
1075M023AA

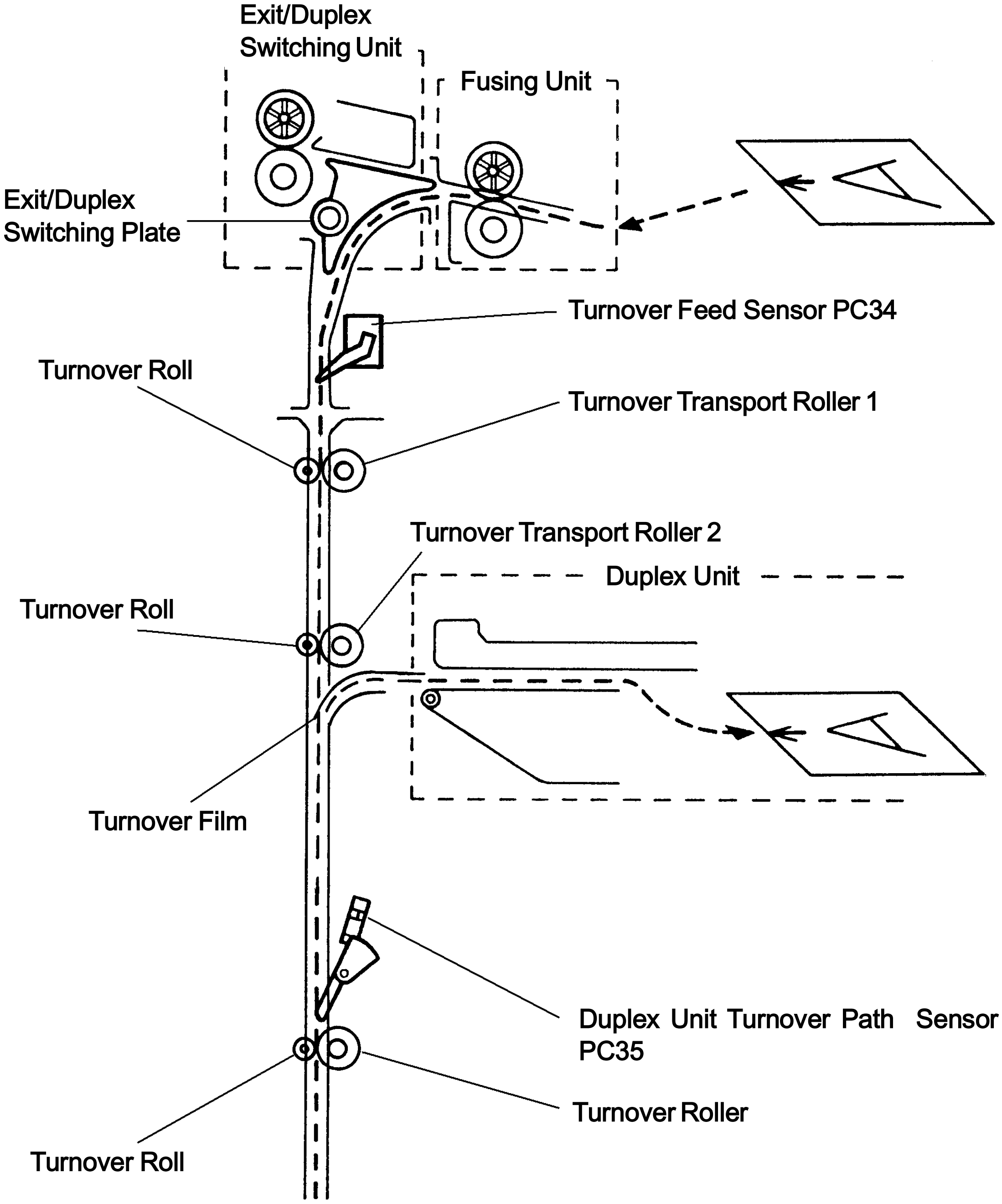
Rear View

	Control Signal	ON	OFF	WIRING DIAGRAM
SL1	PJ3A-7B	L	H	7-B

1161SBM2300A

23 DUPLEX UNIT TURNOVER MECHANISM

- The turnover mechanism of the Duplex Unit reverses the copy fed from the Exit/Duplex Switching Unit and feeds it into the Duplex Unit, the trailing edge of the copy first.



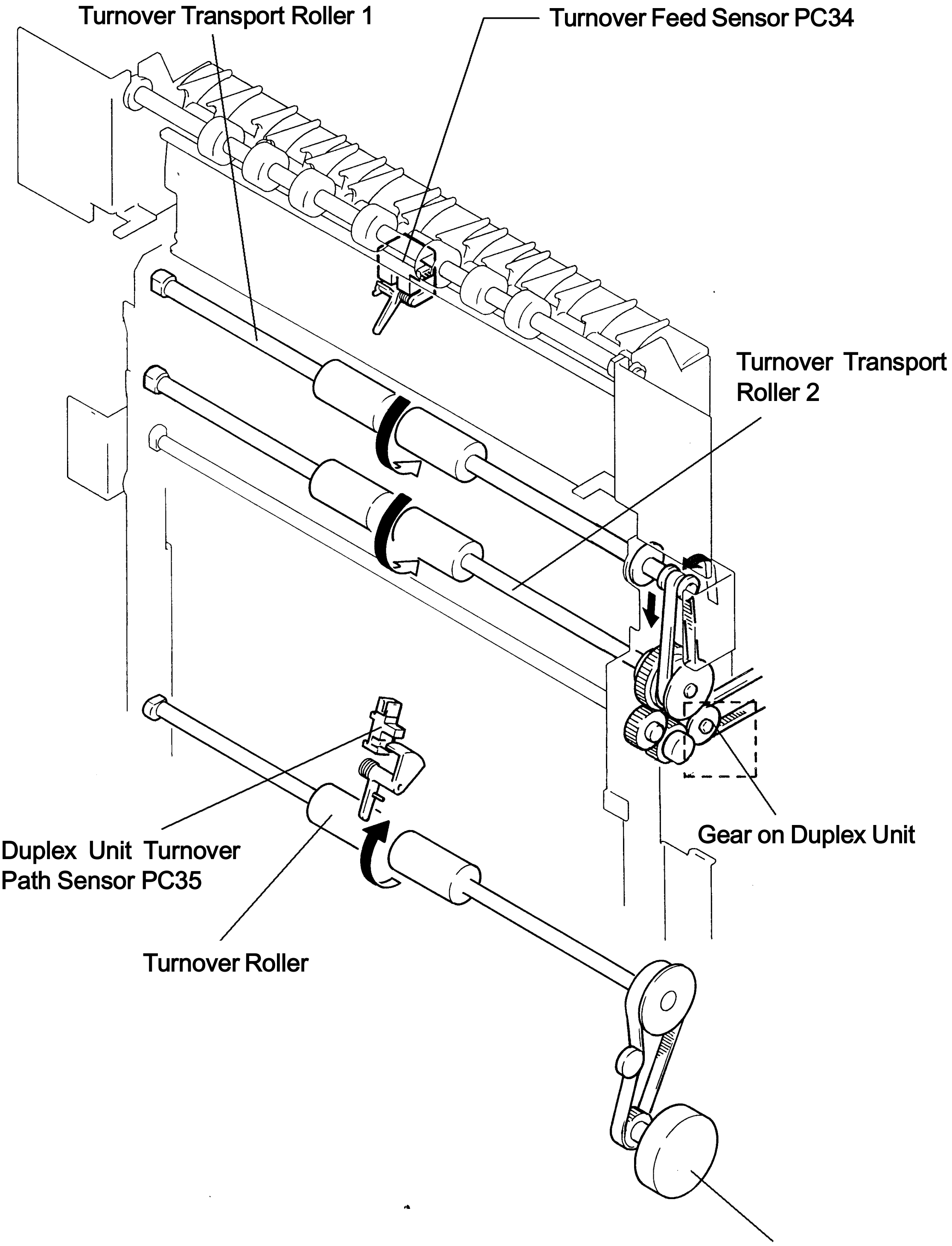
Exit/Duplex Switching Unit
Fusing Unit
Exit/Duplex Switching Plate
Turnover Feed Sensor PC34
Turnover Roll
Turnover Transport Roller 1
Turnover Transport Roller 2
Duplex Unit
Turnover Roll
Turnover Film
Duplex Unit Turnover Path Sensor PC35
Turnover Roller
Turnover Roll

1161M013AA

1161SBM2301A

23-1. Drive Mechanism

- Duplex Unit Drive Motor M7 gives drive to each roller, except for the Turnover Roller which is driven independently by Duplex Unit Turnover Motor M30.

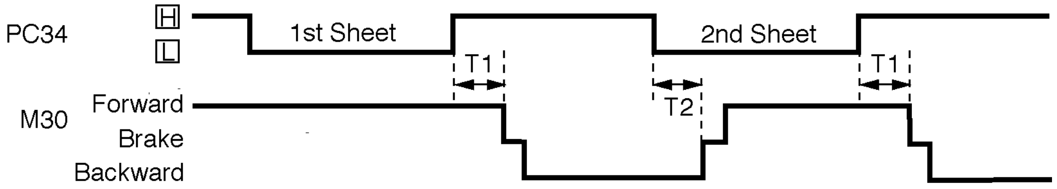

Turnover Transport Roller 1
Turnover Feed Sensor PC34
Turnover Transport Roller 2
Gear on Duplex Unit
Duplex Unit Turnover Path Sensor PC35
Turnover Roller
Duplex Unit Turnover Motor M30

1161M015AA

1161SBM2302A

23-2. Duplex Unit Turnover Control

- Duplex Unit Turnover Motor M30 is a stepping motor. It turns forward to transport the paper downward and backward to transport it into the Duplex Unit.
- Turnover Feed Sensor PC34 is used to determine the timing at which the direction of M30 rotation is switched from backward to forward, or vice versa. For the first sheet of paper, it is switched after the lapse of a given period of time (when the trailing edge of the paper has just left the Turnover Film) after the paper has moved past PC34.
  For the second and subsequent sheets of paper, it is switched after the lapse of a given period time after PC34 has detected the leading edge of the paper.
- Duplex Unit Turnover Path Sensor PC35 detects a sheet of paper that is left in the Turnover Unit when another paper misfeed occurs.



T1 : 370msec. (EP6001) T2 : 670msec. (EP6001)
240msec. (EP8015) 410msec. (EP8015)

1161T30MCA

*The braking time is 50 msec.

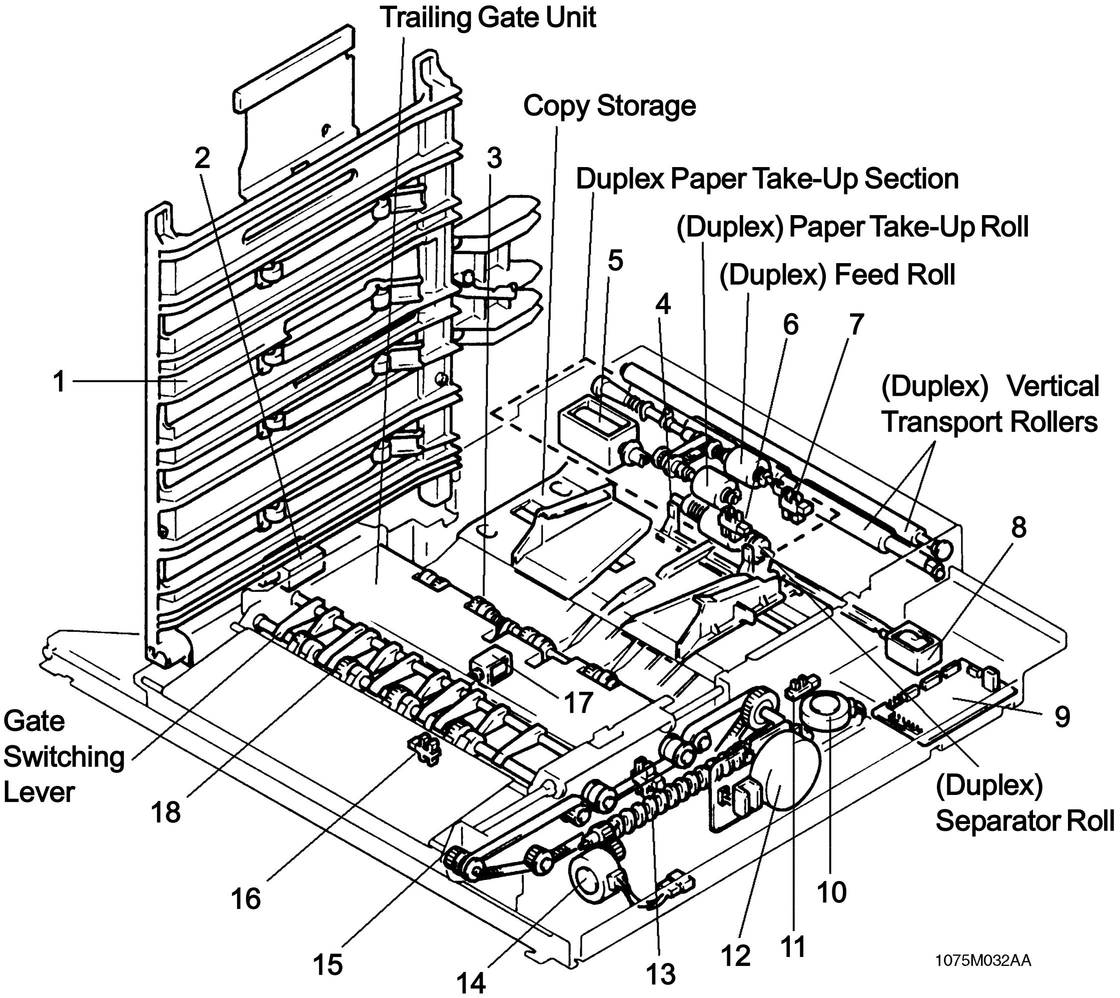
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC34	PJ5A-13A	L	H	7-N
PC35	PJ5A-8B	L	H	7-N

	Control Signal	ON	OFF	WIRING DIAGRAM
M30	PJ2A-12B, 13B	Pulse Output		7-O

1161SBM2400A

24 DUPLEX UNIT

- The size of the paper that can be stored in the Duplex Unit is as follows.
  Metric areas ... A5 lengthwise (148 mm × 210 mm) to A3 lengthwise (297 mm × 420 mm)
  Inch areas ..... 5-1/2" × 8-1/2" to 11" × 17"


Trailing Gate Unit
Copy Storage
Duplex Paper Take-Up Section
(Duplex) Paper Take-Up Roll
(Duplex) Feed Roll
(Duplex) Vertical Transport Rollers
(Duplex) Separator Roll
Gate Switching Lever
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
1075M032AA

1. Upper Guide Plate Assy
2. Duplex Unit Gate Switching Solenoid SL2
3. Gate 1 Transport Roller
4. Leading Edge Guide Plate
5. Duplex Unit Pick Up Solenoid SL4
6. Duplex Unit Paper Empty Sensor PC38
7. Duplex Unit Paper Take-Up Sensor PC37
8. Duplex Unit Leading Edge Solenoid SL5
9. Duplex Unit S/P Board PWB-G
10. Duplex Unit Front/Rear Edge Guide Drive Motor M10
11. Duplex Unit Front/Rear Edge Guide Plate Home Position Sensor PC39
12. Duplex Unit drive Motor M7
13. Duplex Unit Gate Home Position Sensor PC40
14. Duplex Unit Gate Motor M9
15. Turnover Mechanism Drive Gear
16. Duplex Unit paper Empty Sensor PC36
17. Duplex Unit Paper Finger Solenoid SL3
18. Gate 2 Transport Roller

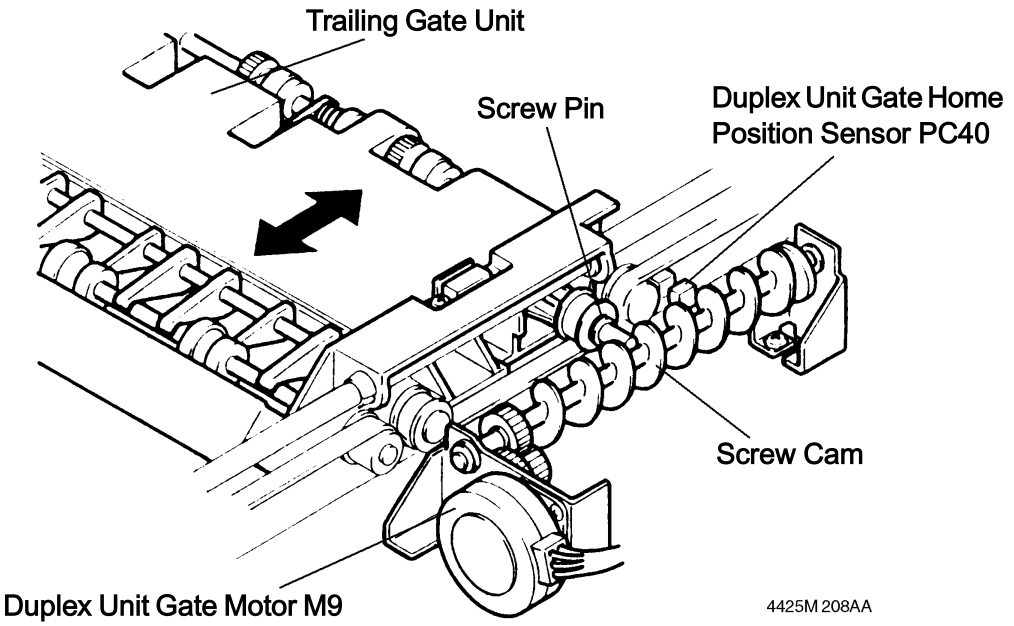
1161SBM2401A

24-1. Trailing Gate Unit Moving Mechanism

- The Trailing Gate Unit is moved as necessary to store paper of different sizes. The unit is moved as drive from Duplex Unit Gate Motor M9 is transmitted via a gear train to the Screw Cam and Screw Pin. It is moved in the direction of the arrow.
- This is done to enhance the Duplex Unit paper storage performance (misfeed prevention, appropriate storing sequence, etc.). It moves according to the paper length with reference to the home position detected by Duplex Unit Gate Home Position Sensor PC40 (blocked L).

Trailing Gate Unit Movement

Paper Length + 3 mm


Trailing Gate Unit
Screw Pin
Duplex Unit Gate Home Position Sensor PC40
Screw Cam
Duplex Unit Gate Motor M9
4425M 208AA

◆ Duplex Unit Gate Motor M9 Control

- At the same time when the Start Key is pressed, M9 is energized to move the Trailing Gate Unit to the position for the paper size selected (paper length + 3 mm).
- When the 2-sided copy mode is canceled, M9 is energized to return the Trailing Gate Unit back to the home position.

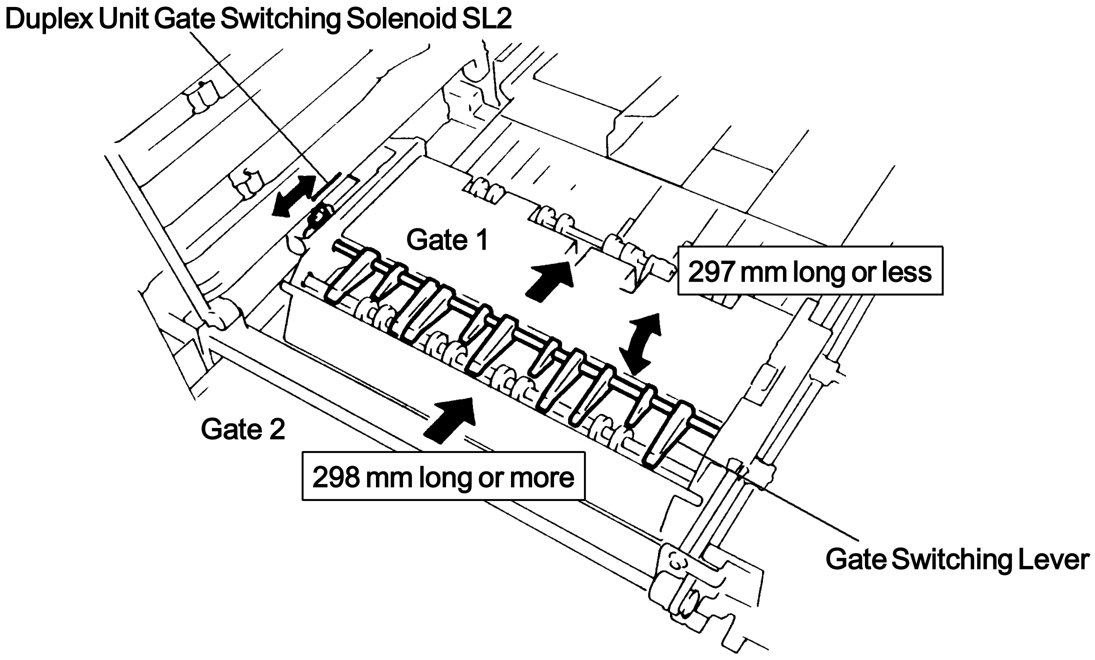
	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC40	PJ7G-2	L	H	7-M

	Control Signal	ON	OFF	WIRING DIAGRAM
M9	PJ5G-3~6	Pulse Output		7-K

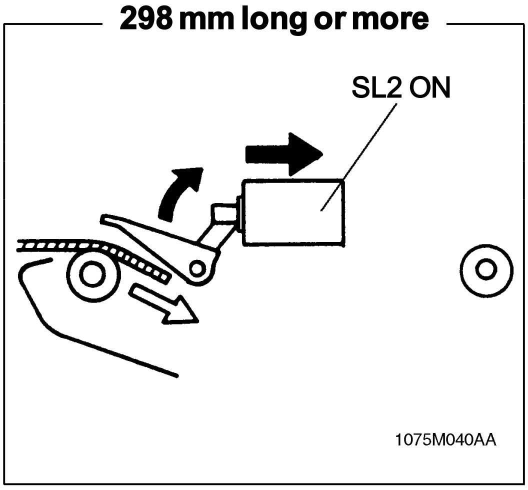
1161SBM2402A

24-2. Gate Switching Mechanism

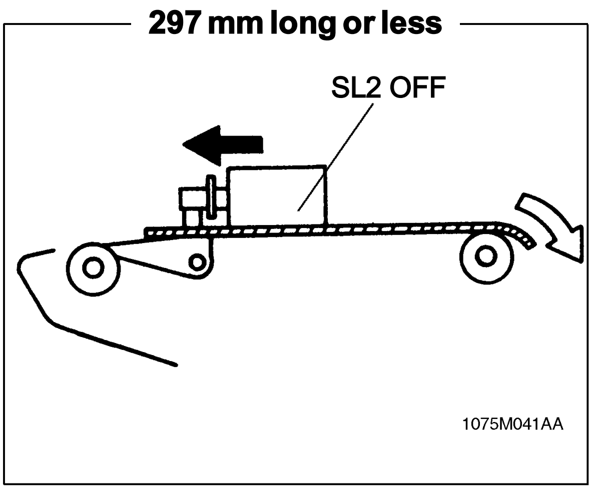
- When paper is to be stored into the Duplex Unit, the Gate Switching Lever is operated as necessary according to the paper size to select Gate 1 or Gate 2.
- The Gate Switching Lever is operated by Duplex Unit Gate Switching Solenoid SL2 which is energized or deenergized according to the paper size to select Gate 1 or Gate 2.
- SL2 is operated at the same time when the paper take-up sequence starts.
- When the paper to be stored is 298 mm long or more, SL2 is energized to swing open the Gate Switching Lever to allow the paper through Gate 2.
- When the paper to be stored is 297 mm long or less, SL2 is deenergized, allowing the paper through Gate 1.


Duplex Unit Gate Switching Solenoid SL2
Gate 1
297 mm long or less
Gate 2
298 mm long or more
Gate Switching Lever

4425M212AA


298 mm long or more
SL2 ON

1075M040AA


297 mm long or less
SL2 OFF

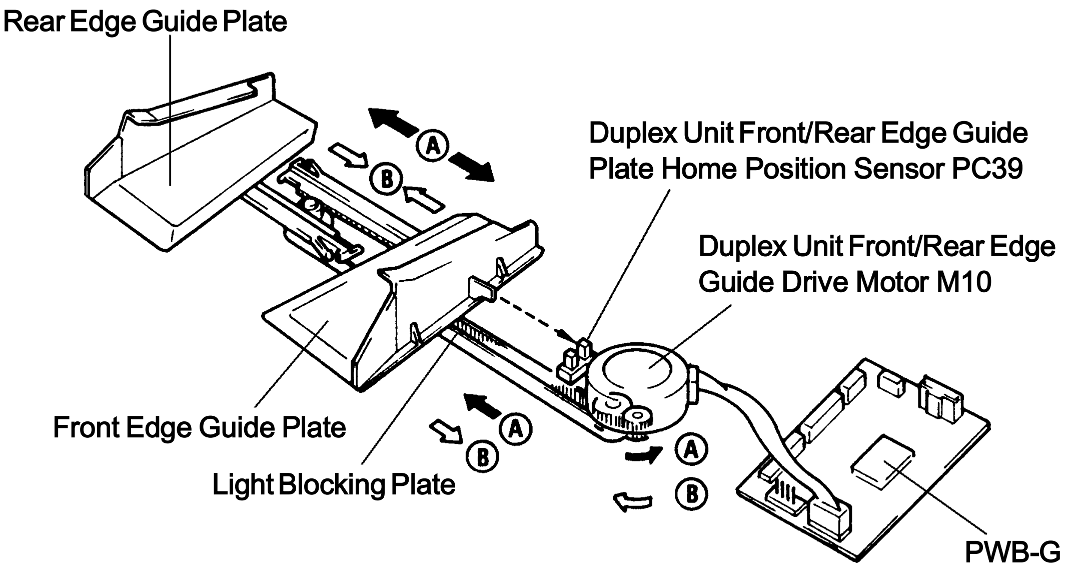
1075M041AA

	Control Signal	ON	OFF	WIRING DIAGRAM
SL2	PJ3G-5	L	H	3-O

1161SBM2403A

24-3. Front/Rear Edge Guide Plate Drive Mechanism

- The Front and Rear Edge Guide Plates of the Duplex Unit align the front and rear edges of the paper being stored into the Copy Storage.
- The drive mechanism employs a rack and pinion gear and each of the two guide plates is moved over the same distance (because of center registration) by the gear and belt driven by Duplex Unit Front/Rear Edge Guide Drive Motor M10.
- M10 turns in steps, each step moving each guide plate a distance of about 0.4 mm with respect to the position where Duplex Unit Front/Rear Edge Guide Plate Home Position Sensor PC39 is blocked. M10 is energized to move the plates up to the corresponding paper size positions.

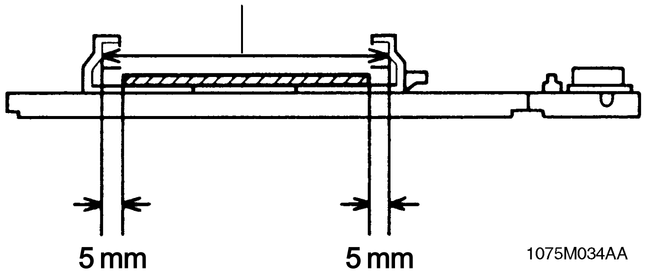

Rear Edge Guide Plate
Ⓐ
Ⓑ
Duplex Unit Front/Rear Edge Guide Plate Home Position Sensor PC39
Duplex Unit Front/Rear Edge Guide Drive Motor M10
Front Edge Guide Plate
Ⓐ
Ⓑ
Light Blocking Plate
Ⓐ
Ⓑ
PWB-G

1075M039AA

M10 turns in the direction of →Ⓐ:←Ⓐ →(The Front/Rear Edge Guide Plates are moved outward to widen the gap between them.)
M10 turns in direction of⇐Ⓑ: ⇒Ⓑ⇐(The Front/Rear Edge Guide Plates are moved inward to narrow the gap between them.)

◆ Retracted Position

After the Front/Rear Edge Guide Plates move to the width of the paper, they are retracted as each moves 5 mm away from the corresponding edge of the paper.

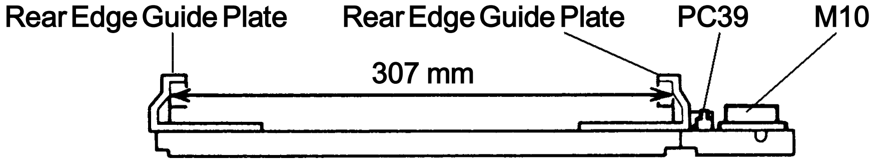

Paper
5 mm
5 mm

1075M034AA

◆ Operation of the Front/Rear Edge Guide Plates (for A4 lengthwise paper)

<In standby, at home position>

- The Front/Rear Edge Guide Plates are located at a position where Duplex Unit Front/Rear Edge Guide Plate Home Position Sensor PC39 is blocked.



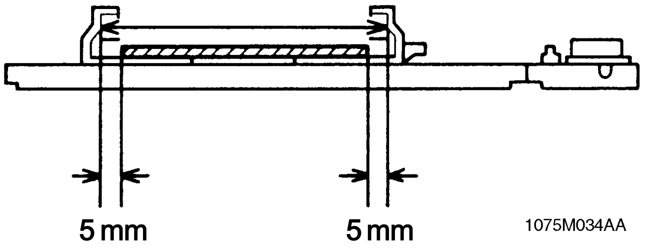
1075M033AA

<When storing and taking up a copy>

- Select the 2-sided copy mode and press the Start Key. At the same time, M10 starts turning forward and the two guide plates move to the respective retracted positions.

↓

A4 lengthwise (210 mm) + Retract Distance (5 mm × 2)

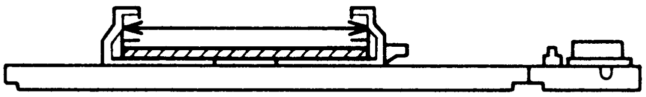


1075M034AA

After the trailing edge of the paper to be stored in the Duplex Unit has unblocked ($\boxed{\text{H}}$) Duplex Unit Paper Entry Sensor PC36, M10 starts turning forward moving the Front/Rear Edge Guide Plates to the paper aligning positions, the dimension between which is the width of the paper. The two guide plates align the paper.

The guide plates move between the retracted and aligning positions for each copy to be stored.

A4 lengthwise (210 mm)



1075M035AA

When Duplex Unit Paper Empty Sensor PC38 is unblocked ($\boxed{\text{H}}$), M10 starts turning backward to return the Front/Rear Edge Guide Plates to a position where PC39 is blocked ($\boxed{\text{L}}$).

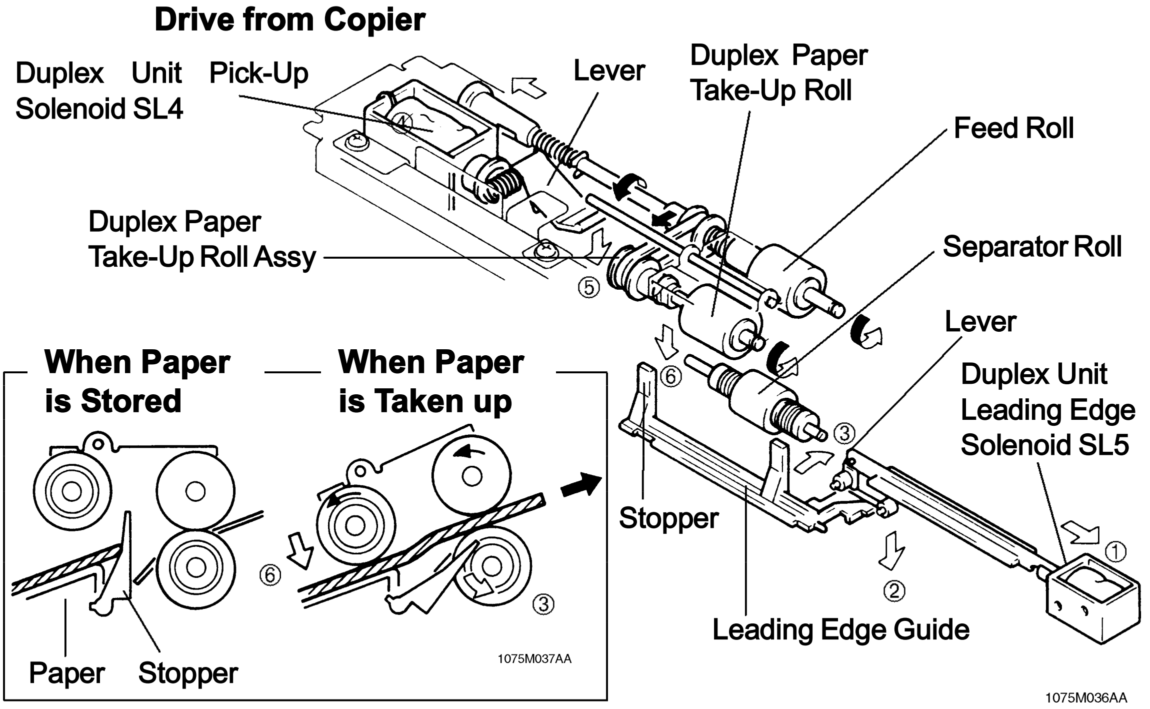
	Control Signal	ON	OFF	WIRING DIAGRAM
M10	PJ4G-3∼6	Pulse Output		7-J

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC39	PJ7G-5	H	L	7-M

1161SBM2404A

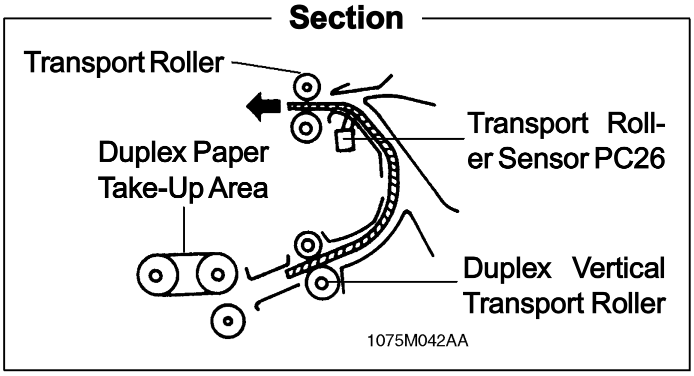
24-4. Leading Edge Guide Plate and Duplex Paper Take–Up Drive Mechanism

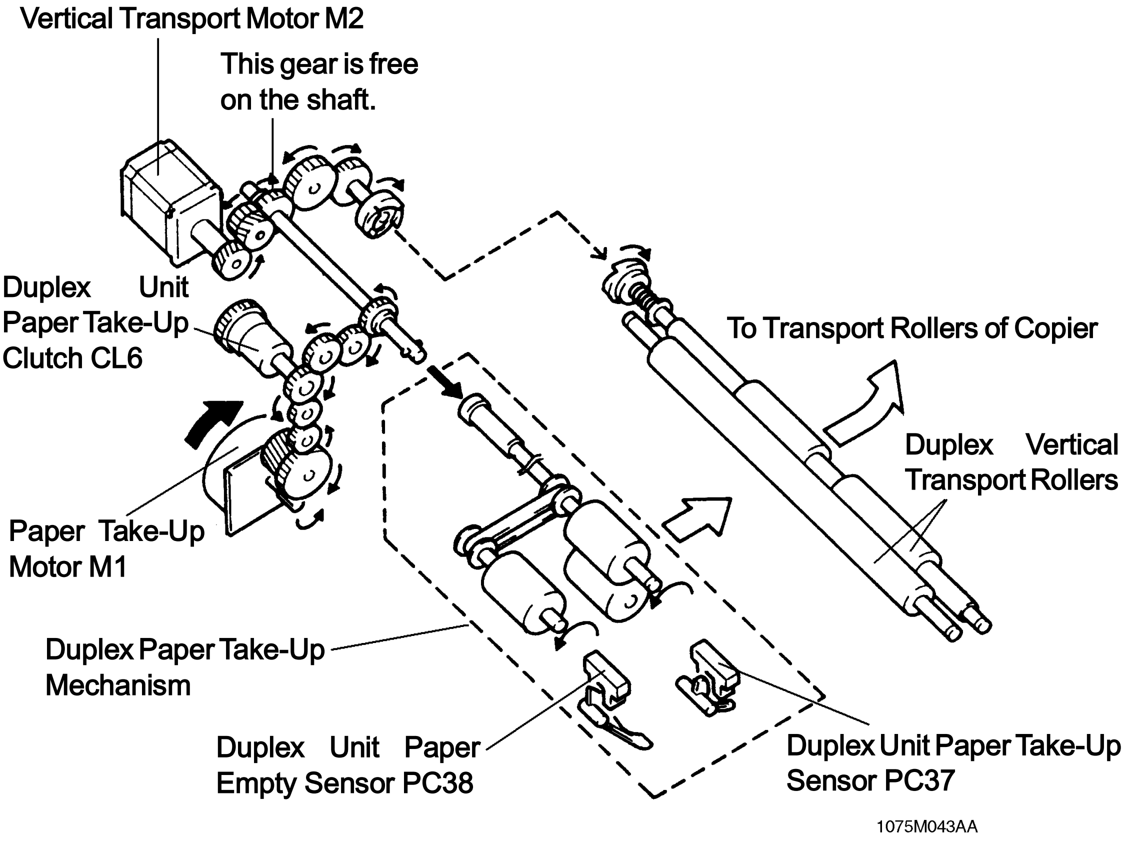
- Copies stored in the Duplex Unit are taken up and fed back into the copier for the second copy cycle by the Duplex Paper Take-Up Roll and Feed Roll. These rolls are driven as Paper Take-Up Motor M1 of the copier drives the Duplex Paper Take-Up Roll shaft. The top copy is separated from the remaining ones by a paper separating mechanism with a torque limiter.
- The Leading Edge Guide Plate aligns the leading edge of the copy being stored into the Copy Storage of the Duplex Unit.
- When Duplex Unit Leading Edge Solenoid SL5 is energized to begin a paper take-up sequence, the Leading Edge Guide Plate is lowered and its stoppers are laid down flat. When Duplex Unit Pick-Up Solenoid SL4 is energized, the Duplex Paper Take-Up Roll is pressed up against the copy and starts taking it up.
- SL5 and SL4 are energized at the same time.


Drive from Copier
Duplex Unit Pick-Up Solenoid SL4
Lever
Duplex Paper Take-Up Roll
Feed Roll
Duplex Paper Take-Up Roll Assy
Separator Roll
Lever
Duplex Unit Leading Edge Solenoid SL5
④
⑤
⑥
③
①
②
Stopper
Leading Edge Guide
When Paper is Stored
When Paper is Taken up
Paper
Stopper
⑥
③
1075M037AA
1075M036AA

◆ Duplex Vertical Transport Rollers Drive

- The paper taken up from the Duplex Unit is fed by the Duplex Vertical Transport Rollers onto the Transport Rollers of the copier.
- The Duplex Vertical Transport Rollers are driven by Vertical Transport Motor M2 of the copier.

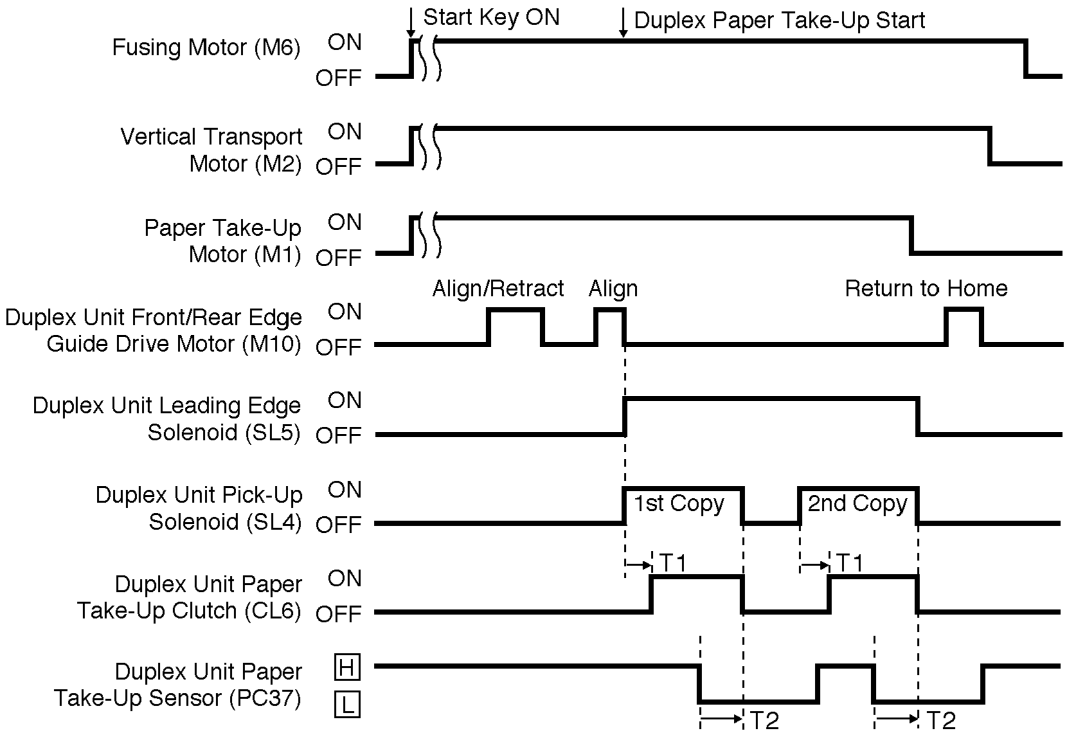

Section
Transport Roller
Transport Roller Sensor PC26
Duplex Paper Take-Up Area
Duplex Vertical Transport Roller
1075M042AA


Vertical Transport Motor M2
This gear is free on the shaft.
Duplex Unit Paper Take-Up Clutch CL6
To Transport Rollers of Copier
Duplex Vertical Transport Rollers
Paper Take-Up Motor M1
Duplex Paper Take-Up Mechanism
Duplex Unit Paper Empty Sensor PC38
Duplex Unit Paper Take-Up Sensor PC37
1075M043AA

1161SBM2405A

24-5. Duplex Paper Take-Up Operation

◆ **Normal mode (Making 2 2-sided copies on A4 crosswise paper from 1-sided originals by using the Duplexing Document Feeder)**



Start Key ON
Duplex Paper Take-Up Start
Fusing Motor (M6)
Vertical Transport Motor (M2)
Paper Take-Up Motor (M1)
Duplex Unit Front/Rear Edge Guide Drive Motor (M10)
Duplex Unit Leading Edge Solenoid (SL5)
Duplex Unit Pick-Up Solenoid (SL4)
Duplex Unit Paper Take-Up Clutch (CL6)
Duplex Unit Paper Take-Up Sensor (PC37)
ON
OFF
H
L
Align/Retract
Align
Return to Home
1st Copy
2nd Copy
T1
T2

T1 : 200msec. (EP6001) T2 : 260msec. (EP6001)
150msec. (EP8015) 170msec. (EP8015)

1161T36MCA

	Control Signal	ON	OFF	WIRING DIAGRAM
SL4	PJ2G-12	L	H	3-N
SL5	PJ2G-7	L	H	3-M
CL6	PJ2G-2	L	H	3-H

	Control Signal	Unblocked	Blocked	WIRING DIAGRAM
PC37	PJ2G-9	H	L	3-N
PC38	PJ2G-4	H	L	3-L

◆ Paper Take-Up Retry Control

- If Duplex Unit Paper Take-Up Sensor PC37 is not activated (blocked) within a given period of time after the start of the Duplex paper take-up sequence, the paper take-up sequence starts again after SL4 and SL5 are deenergized. This reduces the occurrence of a paper misfeed.

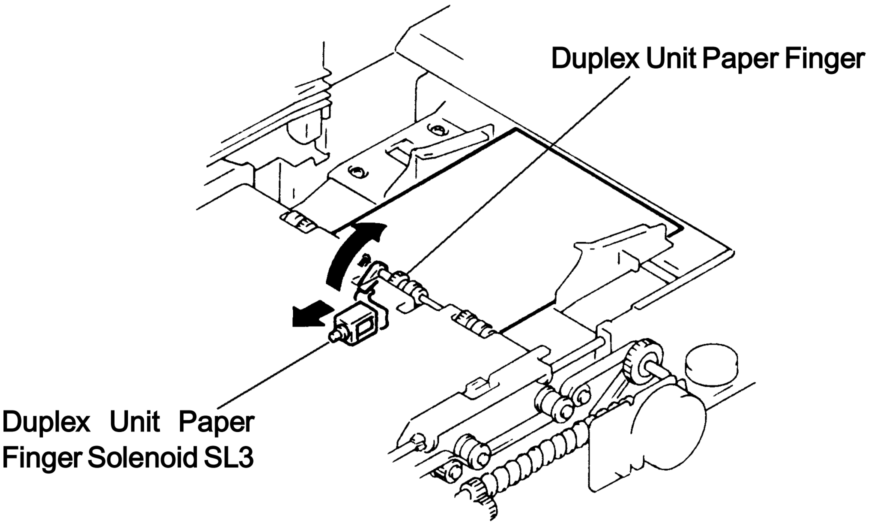
NOTE: The paper take-up retry sequence is not performed in the Time Saver mode.

◆ Time Saver Mode

- In the Time Saver mode, the copies stored in the Duplex Unit are taken up and fed back into the copier in a different order from when in the normal mode. When the number of copies remaining to be stored in the Duplex Unit becomes N, that copy is immediately taken up and fed back to the copier and the subsequent ones are taken up each time they have just been stored in the Duplex Unit.
- This mode is set only when the Duplexing Document Feeder is being used [in the standard mode (not in the Mixed Original Detection mode) with full-size zoom ratio, and using 297-mm-long-or-less paper].
- When Duplex Unit Paper Finger Solenoid SL3 is energized, it turns the Duplex Unit Paper Finger so that the finger presses the copy or copies stored in the Duplex Unit.
- When all copies are fed out of the Duplex Unit, the Paper Finger returns to its home position.

No.	Paper Length	Time Saver Mode*
1	139 mm to 216 mm	The number of copies remaining to be stored in the Duplex Unit is 4
2	217 mm to 297 mm	The number of copies remaining to be stored in the Duplex Unit is 3

*For EP8015, the mode is activated when the number of copies remaining to be stored in the Duplex Unit is 3 for all paper length.



	Control Signal	ON	OFF	WIRING DIAGRAM
SL3	PJ3G-7	L	H	3-P

1161SBM2500A

25 MEMORY BACKUP

IC1 (RAM) of RAM Board PWB-R connected to Main Control Board PWB-A stores the setting/adjustment values set in the Tech. Rep. Modes as well as the counter counts. Backup Battery BAT1 is mounted on PWB-R to prevent the contents of memory from being lost when the power cord is unplugged or PWB-R removed from the copier. BAT1 requires a voltage of 2V or more to retain the contents of memory.

Important

As we noted above, the RAM stores critical data. If PWB-R has been replaced with a new one, memory must first be cleared and then all settings be made again. It should also be noted that PWB-R should not be replaced at the same time when PWB-A is replaced.

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1161SBD000AA

EP8015/EP6001

DIS/REASSEMBLY, ADJUSTMENT

MINOLTA

1151SBD0000A

◆ For the Utmost safety ◆

⚠ Warning

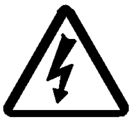
- For replacement parts, use the genuine parts with their part numbers specified in the parts manual. Use of a wrong part could cause an overload or dielectric breakdown resulting in an electric shock or fire.
- Replace a blown fuse or thermal fuse with the corresponding genuine part with its part number specified in the parts manual. Use of a fuse with a different rating or one with the same rating but of a different type can result in a fire.
  Especially when a thermal fuse blows frequently, the thermal control system is probably faulty.
  Be sure to take necessary action.
- Before attempting to disassemble the machine, be sure to unplug its power cord. The machine contains a high voltage unit and a circuit with a large current capacity that may cause an electric shock or burn from sparking.
  The machine also contains quick moving parts, which could injure a person.
  If the machine uses a laser, a person can lose his/her eyesight by a laser beam leak.
- Wherever feasible, keep the covers and parts mounted when energizing the machine.
  If it is absolutely necessary to energize the machine with its cover removed, do not touch an exposed part that is being charged and use care not to allow your clothing to be caught by a timing belt, gear, or other moving part.
- Do not leave the machine unattended while it is being energized.

⚠ Caution

- To actuate an interlock switch with a cover removed or opened, be sure to use the interlock switch actuating jig. Use of folded paper can damage the interlock switch mechanism.

⚠ Caution

- A high voltage is being applied to the part marked with the symbol shown on the right. Touching it can cause an electric shock. Be sure to unplug the power cord when servicing this part or other parts near it.



- When the machine is energized with any of its covers removed, never use a flammable spray near it, as a fire can result.
- Make sure that correct screws (diameter and length of the screw, binding/tapping screws) are used in the correct places when assembling parts. If a wrong screw is used, a short insulating distance could result. It could also result in collapsed threads, which provides only a poor grounding connection, resulting in an electric shock.
- A toothed washer and spring washer, if used originally, must be reinstalled. If they are left out, a contact failure results, causing an electric shock or fire.
- Replace a lithium cell only with one having the part number specified in the parts manual. An explosion could result if the cell is installed with wrong polarity or a wrong cell is installed.
  Dispose of a used lithium cell according to the applicable local regulations. Never throw it away or abandon it on the user's premises.

◆ Other Precautions ◆

- While the machine is being energized, do not unplug or plug in a connector on a PWB or relay harness.
- Since the Magnet Roller of the Imaging Unit generates a strong magnetic force, do not bring a CRT, watch, floppy disk, or magnetic card near it.
- Use of an air gun or vacuum generates static electricity which can cause the ATDC Sensor and associated parts to break down. Be sure therefore to use a blower brush or cloth to clean these parts. If a unit is to be cleaned, be sure to remove the sensors in advance.
- MOS ICs are susceptible to static electricity. When handling a PWB loaded with MOS ICs, follow precautions given in "INSTRUCTIONS FOR HANDLING THE PWBs WITH MOS ICs."
- The PC Drum is highly delicate. When handling the PC Drum, follow the precautions given in "HANDLING OF THE PC DRUM."
- To reassemble, reverse the order of disassembly unless otherwise specified.
- Note that replacement of a PWB may call for readjustments or resetting of particular items.

CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISPOSE OF USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

ADVARSEL!:Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugle bafferi tilbage til leverandoren.

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(17) Focus-Positioning of the Scanner and 2nd/3rd Mirrors Carriage D-115
(18) Focus Adjustment D-118
(19) Adjustment of the Image Transfer/Paper Separator Coronas Height D-120

4 MISCELLANEOUS

4-1. INSTALLATION OF THE ORIGINAL SIZE DETECTING SENSORS (OPTION) D-122
4-2. INSTALLATION OF THE PLUG–IN COUNTER (OPTION) MOUNTING BRACKET D-125

1139SBD0100A

1 SERVICE INSTRUCTIONS

1161SBD0101A

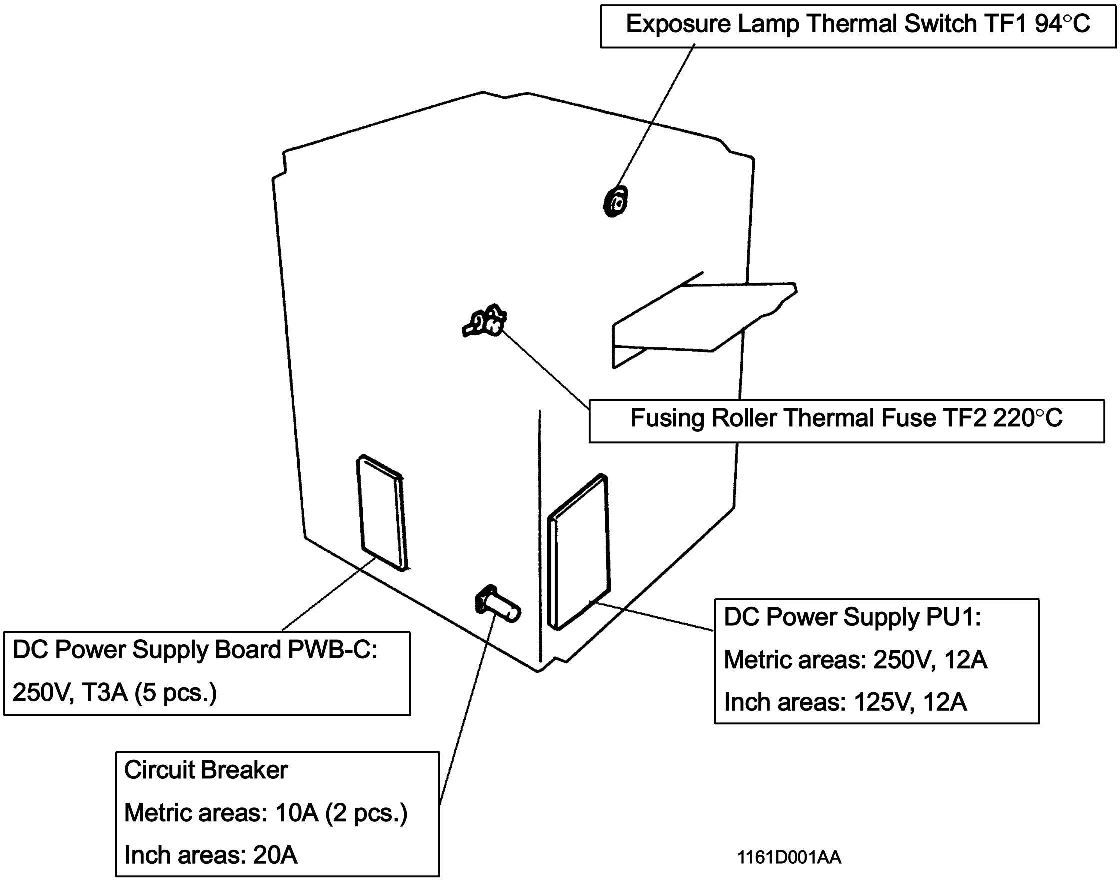
1-1. PRECAUTIONS FOR DISASSEMBLY/ADJUSTMENTS

Observe the following precautions whenever servicing the copier.

- Be sure to unplug the copier from the outlet before attempting to service the copier.
- The basic rule is not to operate the copier anytime during disassembly.
  If it is absolutely necessary to run the copier with its covers removed, use care not to allow your clothing to be caught in revolving parts such as the timing belt and gears.
- Be sure to use the Interlock Switch Actuating Jig whenever it is necessary to actuate the Interlock Switch with the covers left open or removed.
- Do not plug in or unplug print jacks on the Board or connect or disconnect the Board connectors while power is being supplied to the copier.
- Do not use flammable spray around the copier in operation.
- The Magnet Roller of the Imaging Unit generates strong magnetic force. Do not bring it near a cathode-ray tube or watch.
- The lithium cell in RAM Board PWB-R can burst. At replacement, make sure of the correct polarity and do not change it or create a closed circuit.
  A used lithium cell should be disposed of according to the local regulations and never be discarded casually or left unattended at the user's premises.
- Do not use an air gun or vacuum cleaner for cleaning the ATDC Sensor and other sensors, as they can cause electrostatic destruction. Use a blower brush and cloth. If a unit containing these sensors is to be cleaned, first remove the sensors from the unit.
- When handling the PWBs with MOS ICs, observe "Instructions for Handling the PWBs with MOS ICs."
- When handling the PC Drum, observe precautions given in "Handling of the PC Drum."
- Note that replacement of a PWB may call for readjustments or resetting of particular items.
- Use the right screw in the right place at reassembly. Note that some are longer and some are thicker than others.
- A toothed washer is used with the screw that secures the ground wire to ensure positive conduction. Do not forget to insert this washer at reassembly.
- To reassemble the copier, reverse the order of disassembly unless otherwise specified.
- If it becomes necessary to replace the thermal fuse or any other fuse mounted on a board, be sure to use one of the rating marked on the blown fuse.
  Always note the rating marked on the fuse, as the rating and mounting site or number used are subject to change without notice.
- Do not pull out the Toner Hopper while the Toner Bottle is turning, as a damaged Toner Replenishing Motor or locking mechanism could result.
  If the copier is to be run with the Front Door swung down, make sure that the Toner Hopper is in the locked position.

CAUTION: DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

<Identification of Fuses and Circuit Breakers>


Exposure Lamp Thermal Switch TF1 94°C
Fusing Roller Thermal Fuse TF2 220°C
DC Power Supply PU1:
Metric areas: 250V, 12A
Inch areas: 125V, 12A
DC Power Supply Board PWB-C:
250V, T3A (5 pcs.)
Circuit Breaker
Metric areas: 10A (2 pcs.)
Inch areas: 20A
1161D001AA

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1-2. INSTRUCTIONS FOR HANDLING THE PWBs WITH MOS ICs

The following precautions must be observed when handling P.W. Boards with MOS (Metal Oxide Semiconductor) ICs.

During Transportation/Storage:

- During transportation or when in storage, new P.W. Boards must not be indiscriminately removed from their protective conductive bags.
- Do not store or place P.W. Boards in a location exposed to direct sunlight.
- When it becomes absolutely necessary to remove a Board from its conductive bag or case, always place it on its conductive mat in an area as free as possible from static electricity.
- Do not touch the pins of the ICs with your bare hands.

During Replacement:

- Before unplugging connectors from the P.W. Boards, make sure that the power cord has been unplugged from the outlet.
- When removing a Board from its conductive bag or conductive case, do not touch the pins of the ICs or the printed pattern. Place it in position by holding only the edges of the Board.
- Before plugging connectors into the Board, make sure that the power cord has been unplugged from the power outlet.

During Inspection:

- Avoid checking the IC directly with a multimeter; use connectors on the Board.
- Never create a closed circuit across IC pins with a metal tool.
- When it is absolutely necessary to touch the ICs and other electrical components on the Board, be sure to ground your body.

1151SBD0103A

1-3. HANDLING OF THE PC DRUM

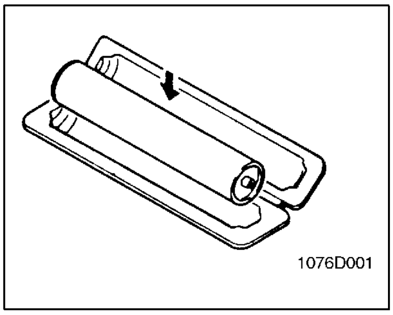
During Transportation/Storage:

- Use the specified carton whenever moving or storing the PC Drum.
- The storage temperature is in the range between –20°C and +40°C.
- In summer, avoid leaving the PC Drum in a car for a long time.

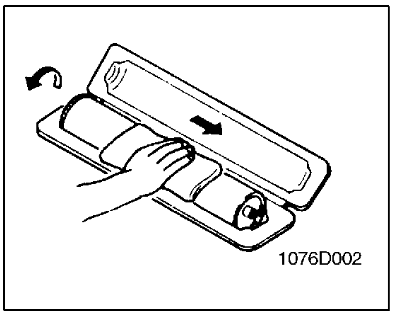
Handling:

- Ensure that the correct PC Drum is used.
- Whenever the PC Drum has been removed from the copier, store it in its container or protect it with a Drum Cloth.
- The PC Drum exhibits greatest light fatigue after being exposed to strong light over an extended period of time. Never, therefore, expose it to direct sunlight.
- Use care not to contaminate the surface of the PC Drum with oil-base solvent, fingerprints, and other foreign matter.
- Do not scratch the surface of the PC Drum.
- Do not apply chemicals to the surface of the PC Drum.
- Do not attempt to wipe clean the surface of the PC Drum.

If, however, the surface is contaminated with fingerprints, clean it using the following procedure.

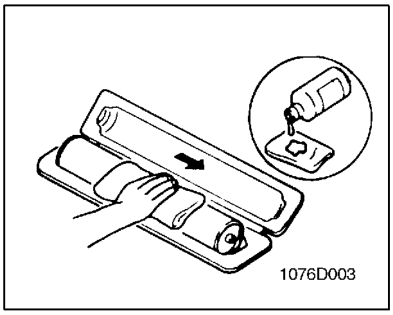


1. Place the PC Drum into one half of its container.



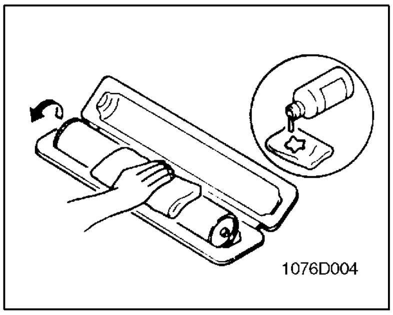
2. Gently wipe the residual toner off the surface of the PC Drum with a dry, Dust-Free Cotton Pad.
   a) Rotate the PC Drum so that the area of its surface on which the line of toner left by the Cleaning Blade is present is facing straight up. Wipe the surface in one continuous movement from the rear edge of the PC Drum to the front edge and off the surface of the PC Drum.
   b) Rotate the PC Drum slightly and wipe the newly exposed surface area with a CLEAN face of the Dust-Free Cotton Pad. Repeat this procedure until the entire surface of the PC Drum has been thoroughly cleaned.

   * At this time, always use a CLEAN face of the dry Dust-Free Cotton Pad until no toner is evident on the face of the Pad after wiping.



3. Soak a small amount of either ethyl alcohol or isopropyl alcohol into a clean, unused Dust-Free Cotton Pad which has been folded over into quarters. Now, wipe the surface of the PC Drum in one continuous movement from its rear edge to its front edge and off its surface one to two times.

   * Never move the Pad back and forth.



4. Using the SAME face of the Pad, repeat the procedure explained in the latter half of step 3 until the entire surface of the PC Drum has been wiped. Always OVERLAP the areas when wiping. Two complete turns of the PC Drum would be appropriate for cleaning.

NOTES

- *The Organic Photoconductor Drum is softer than CdS and Selenium Drums and is therefore susceptible to scratches.*
- *Even when the PC Drum is only locally dirtied, wipe the entire surface.*
- *Do not expose the PC Drum to direct sunlight. Clean it as quickly as possible even under interior illumination.*
- *If dirt remains after cleaning, repeat the entire procedure from the beginning one more time.*

1-4. PARTS WHICH MUST NOT BE TOUCHED

(1) Red Painted Screws

Purpose of Application of Red Paint

Red painted screws show that the assembly or unit secured can only be adjusted or set at the factory and shall not be readjusted, set, or removed in the field.
Note that when two or more screws are used on the part in question, only one representative screw may be marked with red paint.

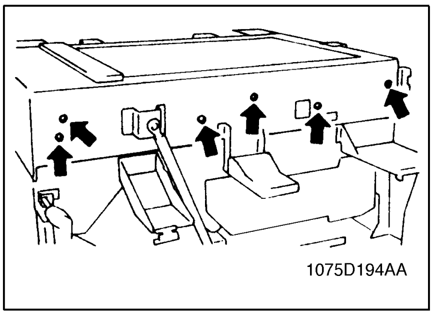
(2) Variable Resistors on Board

Do not turn the variable resistors (potentiometers) on boards to which no adjusting instructions are given in "ADJUSTMENT."

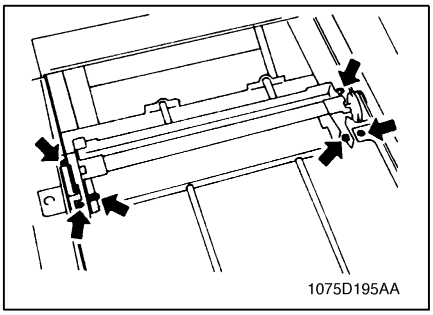
(3) Other Screws

Although not marked with red paint, the following screws must not be loosened or readjusted.

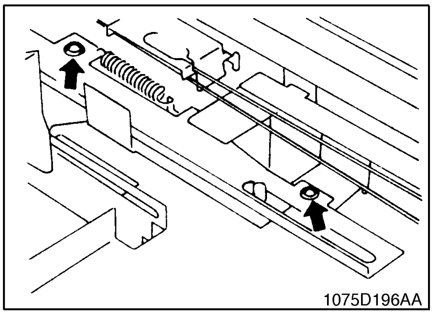
6 screws on the Front and Rear Scanner Rails



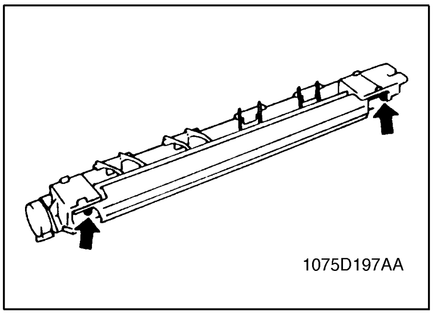
4 screws and 2 set screws on the 2nd/3rd Mirrors Carriage



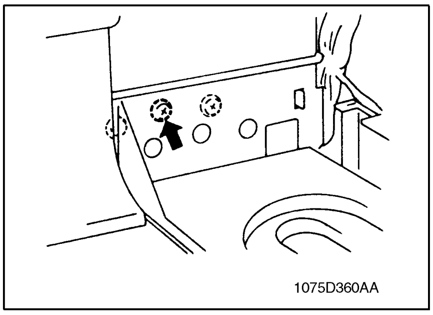
2 screws on the 4th/5th Mirrors Carriage



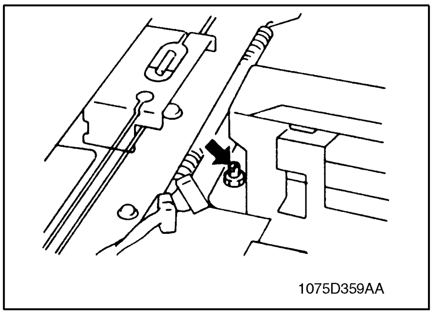
2 screws on the Pre-Image Transfer Guide Plate



4th/5th Mirrors Carriage height adjusting screw (front)



4th/5th Mirrors Carriage height adjusting screw (rear)



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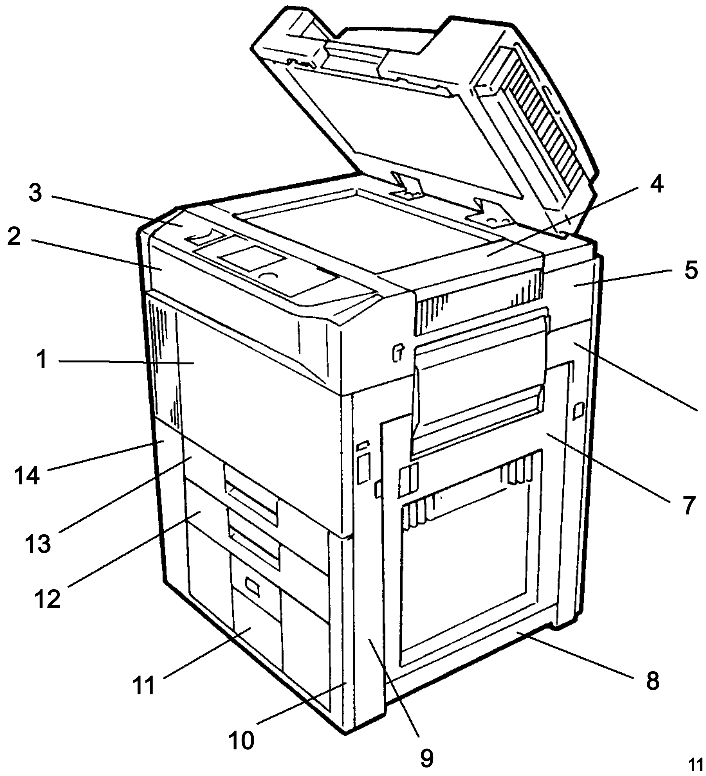
2 DISASSEMBLY/REASSEMBLY

1161SBD0201A

2-1. DOORS, COVERS, AND EXTERIOR PARTS: IDENTIFICATION AND REMOVAL PROCEDURES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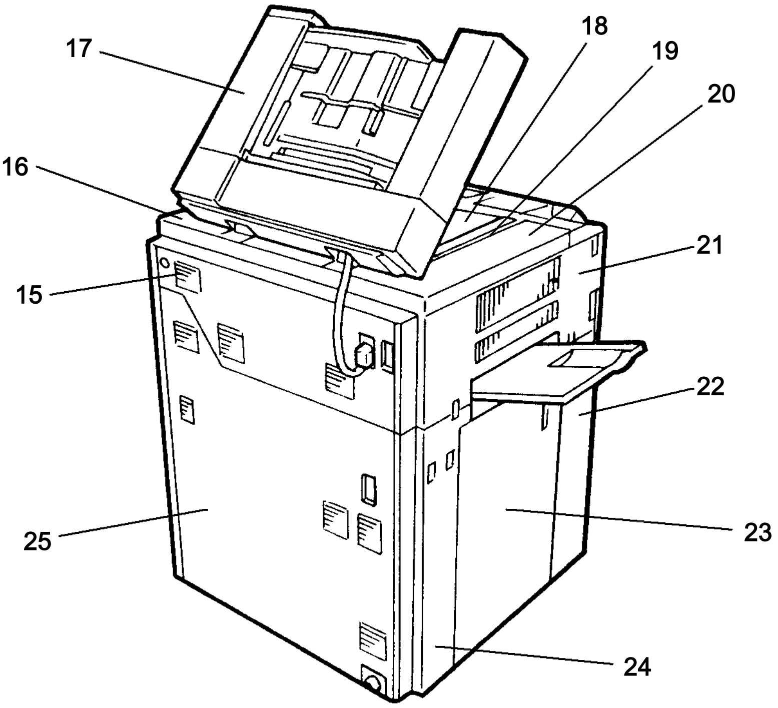
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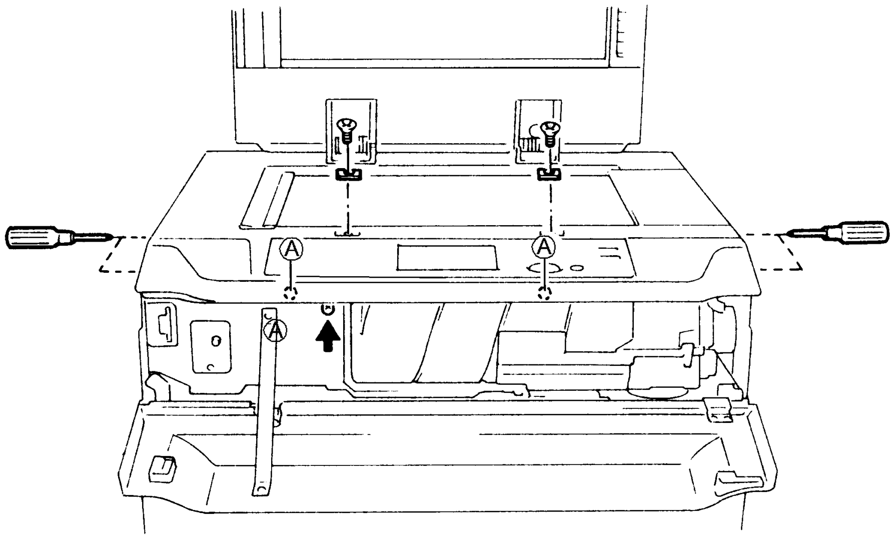
No.	Part Name	Removal Procedure
1	Front Lower Door	Open the Front Lower Door. → Remove 2 belt mounting screws. → Remove 4 Front Lower Door mounting screws.
2	Front Upper Door	Open the Front Upper Door. → Remove 1 belt mounting screw. → Remove 4 Front Upper Door mounting screws.
3	Control Panel Unit	See p. D-8.
4	Upper Right Cover	Remove Ornament Cover → Loosen the center upper mounting screw on the Right Upper Cover. → Pull the Upper Right Cover up.
5	Right Upper Cover	Remove Ornament Cover → Open the Front Upper Door. ⇒ Swing up the Multi Bypass Table. → Remove 4 Right Upper Cover mounting screws.
6	Right Rear Cover	Remove 2 Right Rear Cover mounting screws.
7	Right Door (Multi Bypass Unit)	Remove the Right Rear Cover. ⇒ Remove the harness from one wiring saddle. ⇒ Unplug 3 connectors. → Remove 1 ground wire mounting screw. ⇒ Open the Right Door and pull it up.
8	Right Lower Cover	Open the Right Door. → Remove 2 Right Lower Cover mounting screws.
9	Right Front Cover	Open the Front Lower Door. → Remove 3 Right Front Cover mounting screws.
10	Front Right Cover	Slide out all paper drawers. → Remove 2 Front Right Cover mounting screws.
11	3rd Drawer	See p. D-24.
12	2nd Drawer	Remove the Front Right Cover. ⇒ Remove the Drawer Stopper. ⇒ Slide out the 2nd Drawer and, raising it slightly up, pull it out.
13	1st Drawer	Remove the Front Right Cover. ⇒ Remove the Drawer Stopper. ⇒ Slide out the 1st Drawer and, raising it slightly up, pull it out.
14	Front Left Cover	Slide out all paper drawers. ⇒ Open the Left Door. → Remove 2 Left Front Cover mounting screws. → Remove 2 Front Left Cover mounting screws. (The Front Left Cover and Left Front Cover are secured by means of metal plates.)
22	Left Front Cover	

No.	Part Name	Removal Procedure
15	Rear Upper Cover	Remove 3 Rear Upper Cover mounting screws.
16	Upper Rear Cover	Remove 4 ADF mounting screws. → Remove 4 Ornament Covers. → Remove 4 Upper Rear Cover mounting screws.
17	ADF	Unplug one connector. → Remove 2 ADF mounting screws.
18	Original Glass	Raise the ADF. ⇒ Remove 2 Original Width Scale mounting screws. *Note: When the Original Width Scale has been removed, use care not to lose two springs.*
19	Original Width Scale	
20	Upper Left Cover	Remove the Upper Rear Cover. → Remove the Control Panel. → Remove 2 Upper Left Cover mounting screws.
21	Left Upper Cover	Open the Front Upper Door. → Remove 4 Left Upper Cover mounting screws.
23	Left Door	Remove the Left Rear Cover. → Open the Left Door and pull it up.
24	Left Rear Cover	Remove 3 Left Rear Cover mounting screws.
25	Rear Lower Cover	Remove 4 Rear Lower Cover mounting screws.

◆ Removal of the Control Panel Unit (No. 3)

1. Remove the Right Upper Cover and Left Upper Cover.
2. Raise the ADF and remove the magnet catches by removing two screws.
3. Loosen four screws on the right and left as illustrated below and remove one screw beside the Toner Bottle.
4. Raising the Control Panel Unit, unplug three connectors. This allows the Control Panel Unit to be removed.

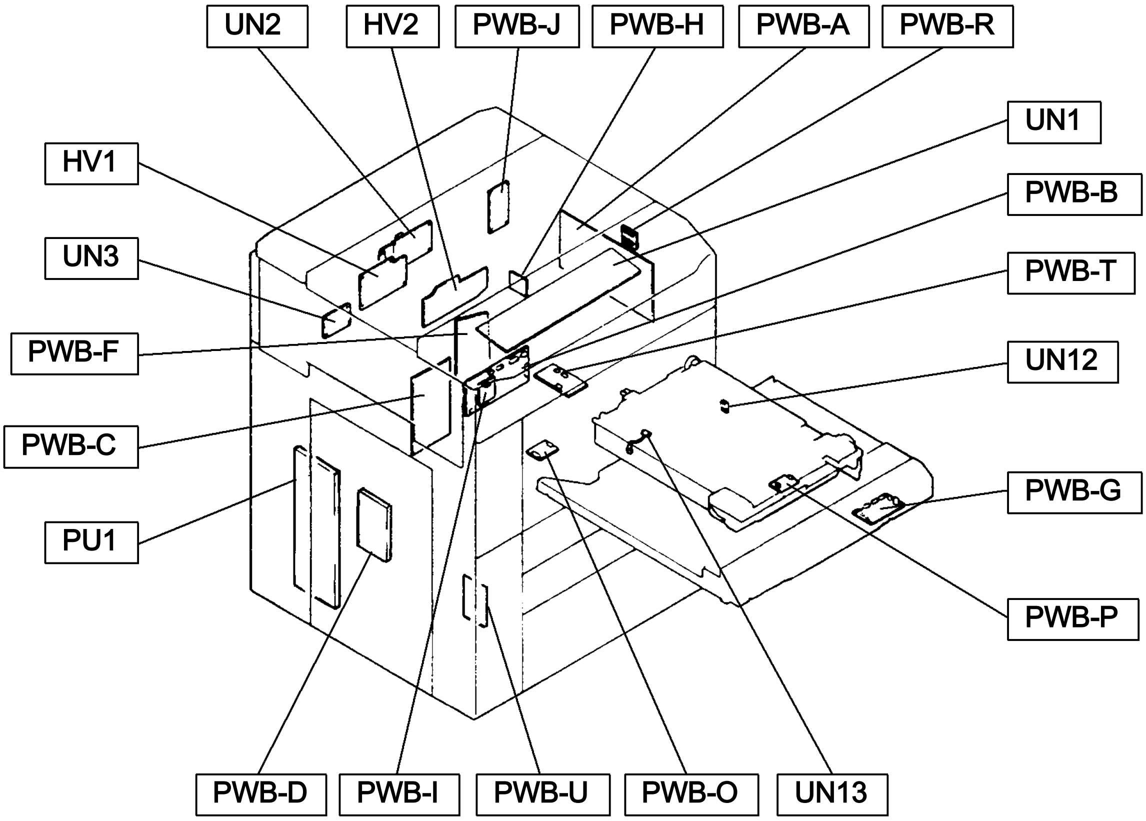
* To remove the Control Panel only, loosen two screws (A) and, raising the Control Panel, unplug two connectors.



1161D002AA

2-2. REMOVAL OF CIRCUIT BOARDS AND OTHER ELECTRICAL COMPONENTS

- When removing a circuit board or other electrical component, refer to "PRECAUTIONS FOR HANDLING THE PWBs" contained in SWITCHES ON PWBs and follow the corresponding removal procedures.
- The removal procedures given in the following omit the removal of connectors and screws securing the circuit board support or circuit board.
- Where it is absolutely necessary to touch the ICs and other electrical components on the board, be sure to ground your body.


UN2
HV2
PWB-J
PWB-H
PWB-A
PWB-R
UN1
HV1
PWB-B
UN3
PWB-T
PWB-F
UN12
PWB-C
PU1
PWB-G
PWB-P
PWB-D
PWB-I
PWB-U
PWB-O
UN13

NOTE

Replacement of PWB-R, UN3, UN12, UN13, and PWB-J calls for readjustments or resetting of particular items. For details, see "ADJUSTMENT."

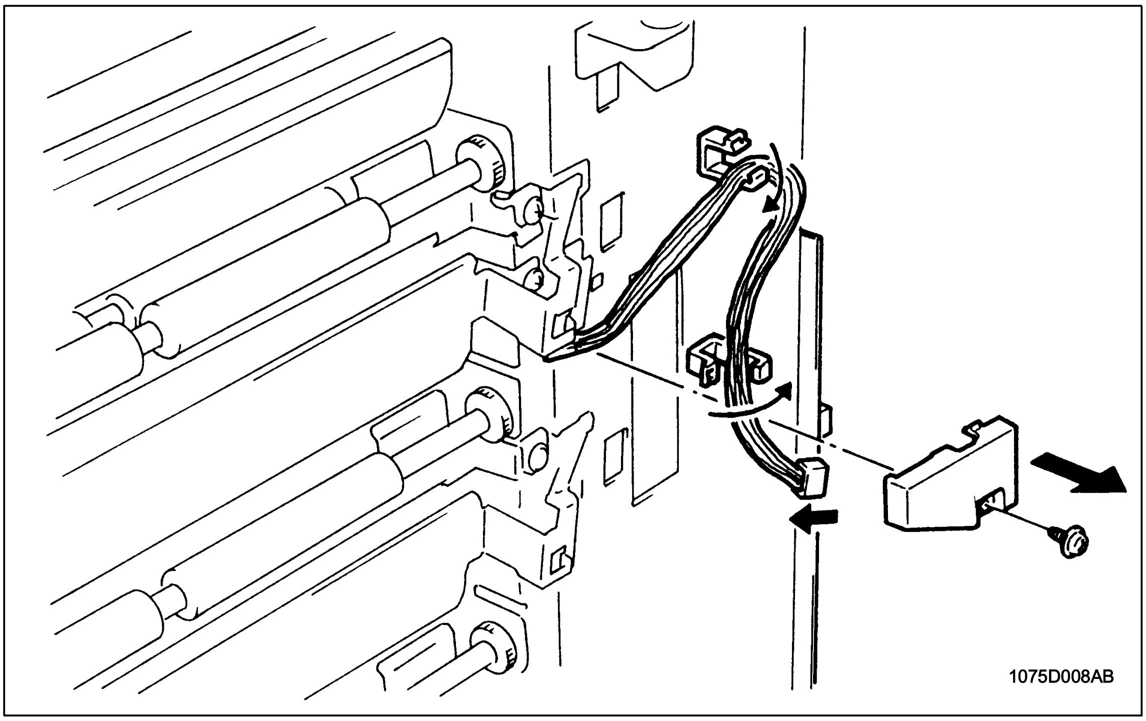
Symbol	Part Name	Removal Procedure
PWB-A	Master Board	Remove the Right Upper Cover. → Remove PWB-A.
PWB-B	MSC Board	Open the Front Lower Door. → Open the Front Upper Door. → Remove the Panel Lower Cover. → Remove PWB-B.
PWB-C	DC Power Supply Board	Remove the Rear Lower Cover. → Remove PWB-C.
PWB-D	Noise Filter Board	Remove the Rear Lower Cover. → Remove the Power Unit Assy. → Remove PWB-D Box. → Remove PWB-D.
PWB-F	Drawer S/P Board	Remove the Rear Lower Cover. → Remove PWB-F.
PWB-G	Duplex Unit S/P Board	Open the Front Lower Door. → Remove the Duplex Unit Cover. → Remove PWB-G.
PWB-H	AE Sensor Board	Remove the Original Glass. → Remove the Optical Cover. → Remove PWB-H.
PWB-I	Tech. Rep. Setting Switches Board	Open the Front Lower Door. → Open the Front Upper Door. → Remove the Panel Lower Cover. → Remove PWB-I.
PWB-J	Exposure Lamp Regulator	Remove the Rear Upper Cover. → Remove the Upper Rear Cover. → Remove the UN2. → Remove the PWB-J Cover. → Remove PWB-J.
PWB-O	M14/M16/M22 Drive Board	Open the Front Lower Door. → Release and swing up the Upper Half of the copier. → Remove the Image Transfer Cover. → Remove PWB-O.
PWB-P	PC Drum Charge Comb Cleaning Motor Drive Board	Open the Front Lower Door. → Remove the PC Unit Cover. → Remove PWB-P.
PWB-R	RAM Board	Remove the Right Upper Cover. → Remove PWB-R.
PWB-T	Synchronizing Motor Control Board	Open the Front Lower Door. → Remove the Image Transfer Cover. → Remove the Synchronizing Rollers Unit. → Remove PWB-T.
UN1	Control Panel	See p. D-8.
UN2	Scanner Control Processor Board	Remove the Rear Upper Cover. → Remove UN2.
UN3	Original Size Detecting Board	Remove the Rear Upper Cover. → Remove the Left Upper Cover. → Remove UN3.
UN12	ATDC Sensor	Open the Front Lower Door. → Slide out the PC Unit. → Remove the Developing Unit. → Remove the Duct Cover. → Remove UN12.
UN13	AIDC Sensor	Open the Front Lower Door. → Slide out the PC Unit. → Remove the Cleaning Unit. → Remove the PC Drum. → Remove the PC Drum Paper Separator Fingers Assy. → Remove UN13.
PU1	DC Power Supply	Remove the Rear Lower Cover. → Remove the Power Unit Assy. → Remove PU1.
HV1	PC Drum Charge HV	Remove the Rear Upper Cover. → Remove the Upper Rear Cover. → Remove UN2. → Remove the HV1 mounting bracket. → Remove HV1.
HV2	Image Transfer/Paper Separator HV	Remove the Rear Lower Cover. → Remove HV2.

1161SBD0203A

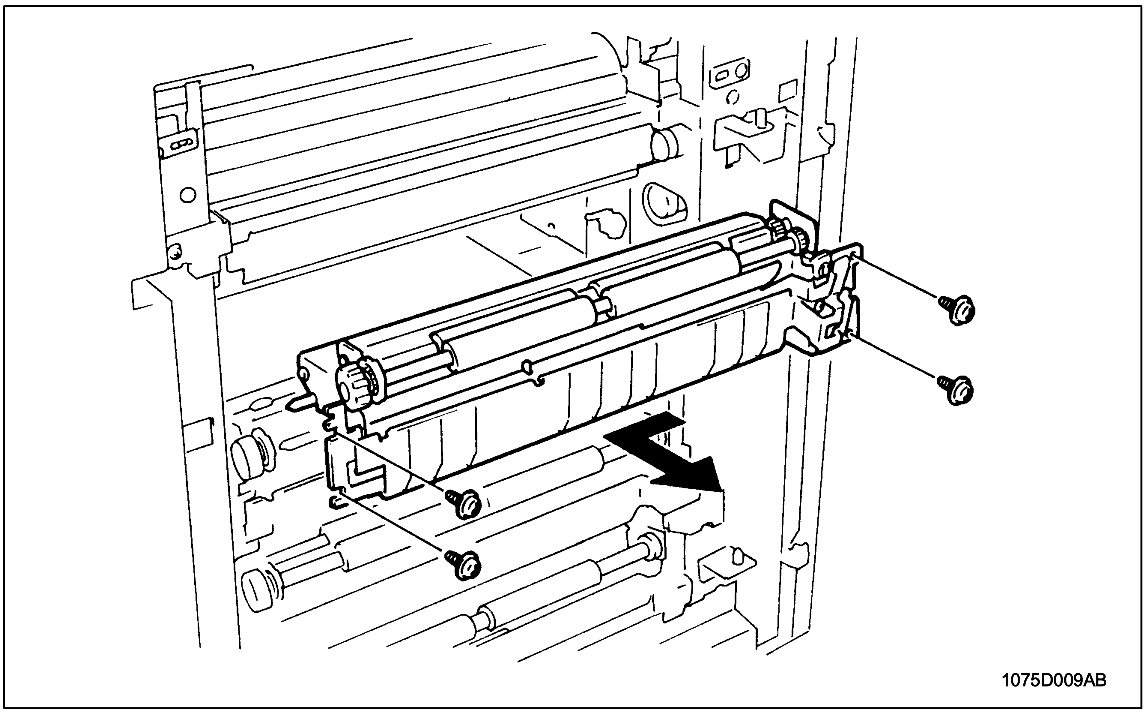
2-3. PAPER TAKE-UP/TRANSPORT SECTIONS

(1) Removal of the Paper Take-Up Unit

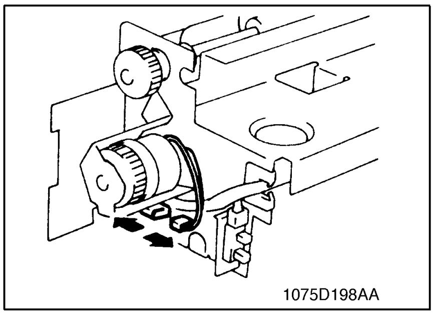
1. Remove the Right Door (Multi Bypass Unit).
2. Slide out the drawer.
3. Remove one screw and the harness cover.
4. Remove the locking wiring saddle.
5. Unplug connectors from Drawer S/P Board PWB-F.



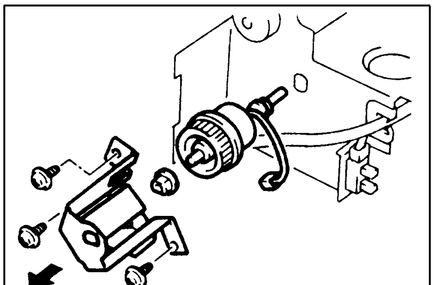
6. Remove four screws each and slide the Paper Take-Up Unit in the direction shown in the illustration.



(2) Replacement of the Paper Take-Up Clutch


1075D198AA

1. Remove the Paper Take-Up Unit.
2. Unplug one connector of the Paper Take-Up Clutch.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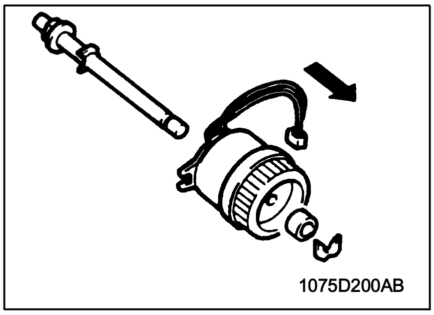
3. Remove three screws and the Paper Take-Up Clutch mounting bracket.
4. Remove the bushing and Paper Take-Up Clutch Assy.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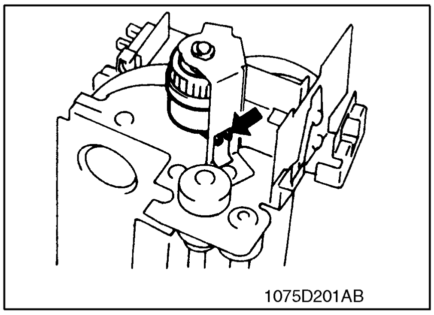
5. Remove the E-ring and Paper Take-Up Clutch.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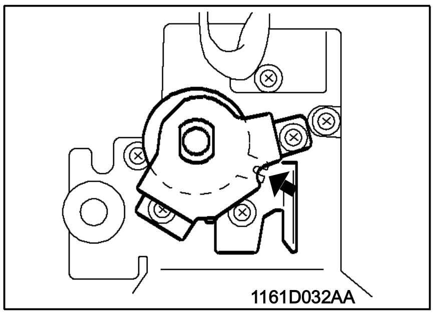
EP6001

NOTE

When reinstalling the Paper Take-Up Clutch, secure it in position with the protrusion of the clutch aligned with the cutout in the mounting bracket.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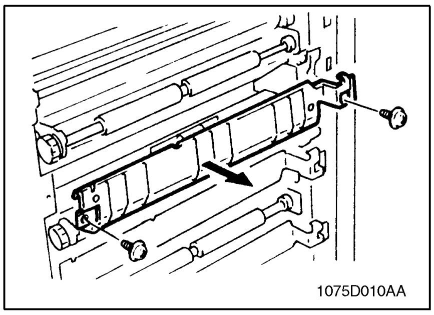
EP8015

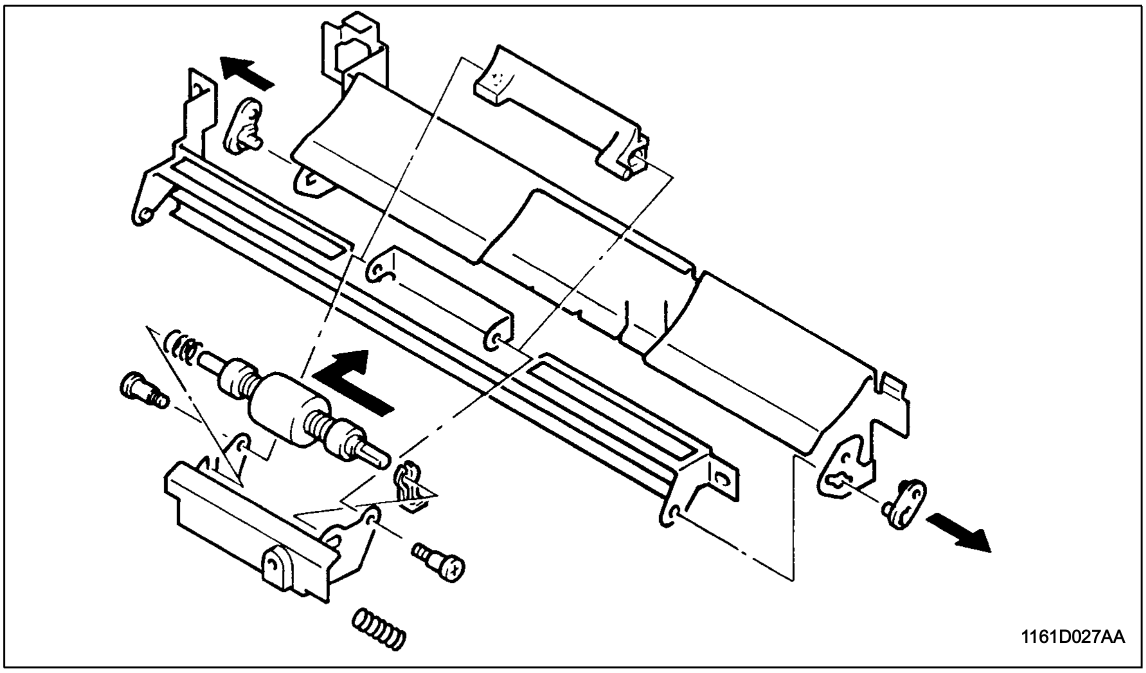
NOTE

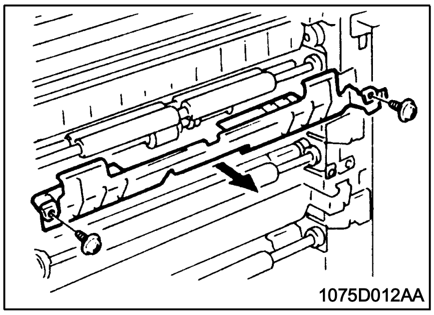
When reinstalling the Paper Take-Up Clutch, secure it in position with its protrusion fitted into the gap between the two legs of the mounting bracket. (See the illustration on the left.)

(3) Replacement of the Paper Take-Up Roll, Paper Feed Roll, and Paper Separator Roll Assy

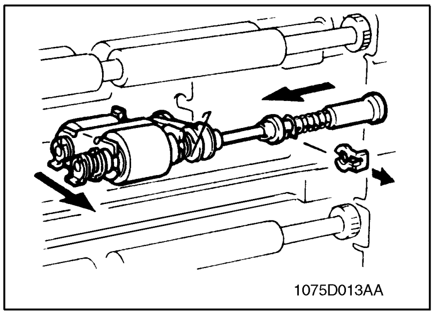


1. Open the Right Door.
2. Remove two screws and the Paper Separator Unit.
3. Remove the pivot pins on both ends and the Guide Plate.
4. Remove two shoulder screws of the Paper Separator Roll Assy.
5. Remove two C-clips and slide the bushing off to remove the Paper Separator Roll Assy.





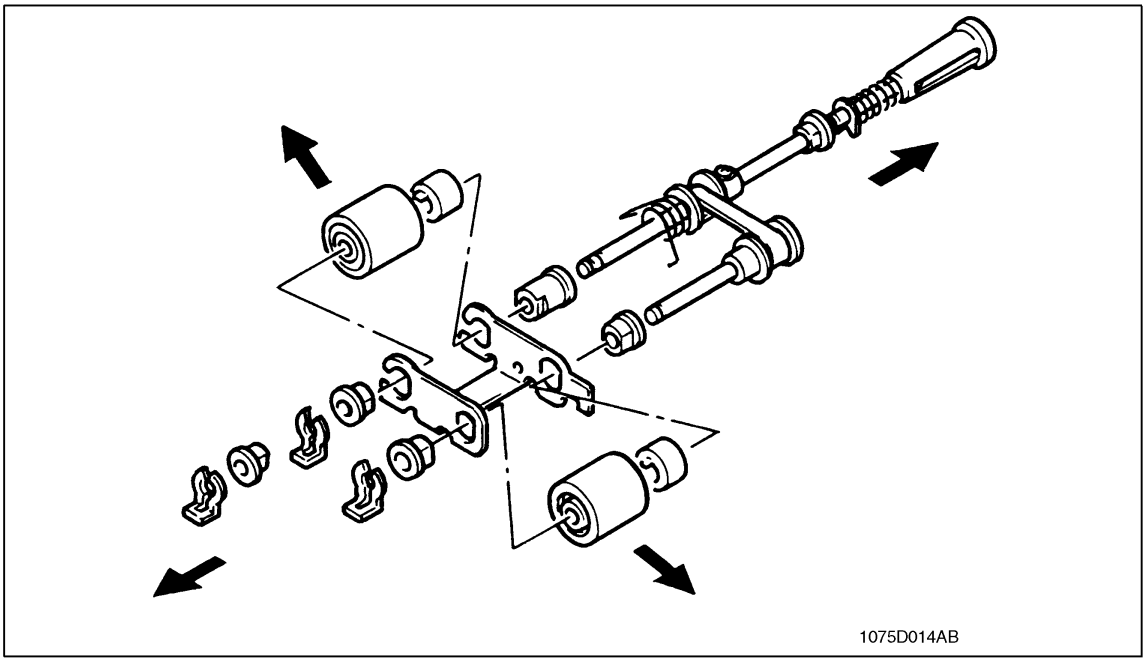
6. Remove two screws and the Paper Guide Plate.



1075D013AA

7. Remove the C-clip and slide the bushing to the side.
8. Slide the coupling to the left and remove the Paper Take-Up Roll Assy.

9. Remove the C-clip and slide the bushing off to remove the Paper Take-Up Roll and Feed Roll.



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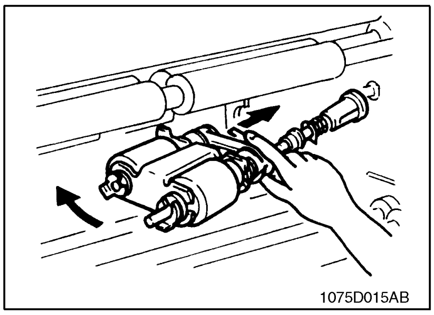

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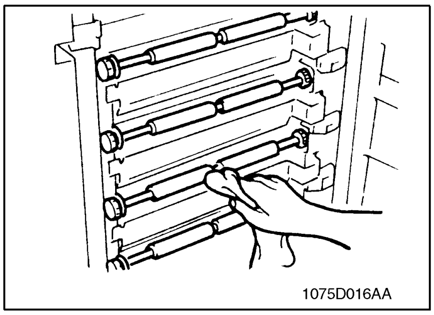
NOTE

When reinstalling the Paper Take-Up Roll Assy, place it horizontally by holding down the torsion spring.

(4) Cleaning of the Vertical Transport Rollers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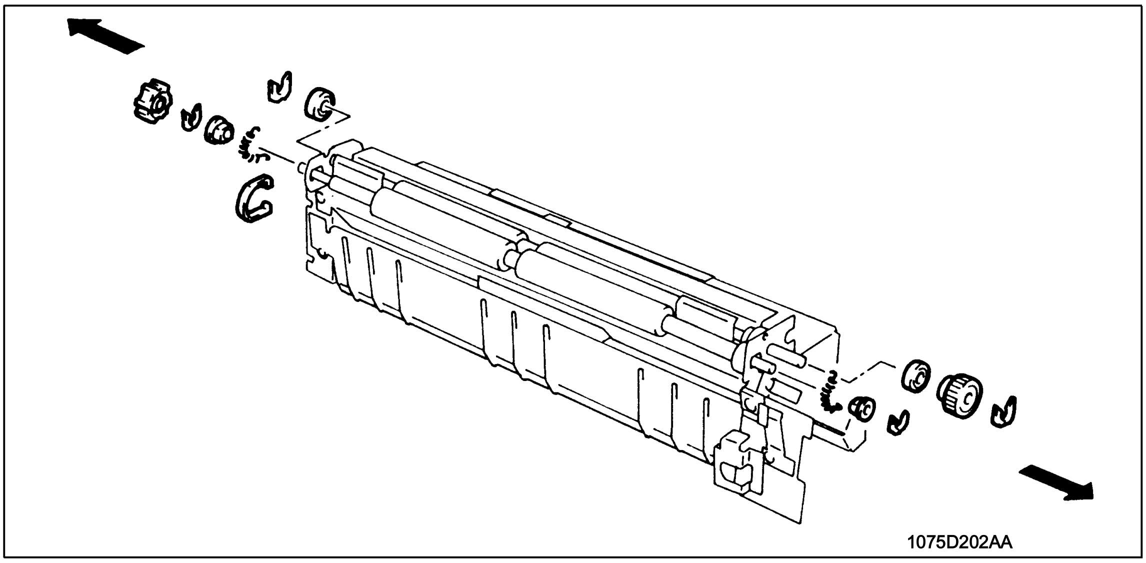
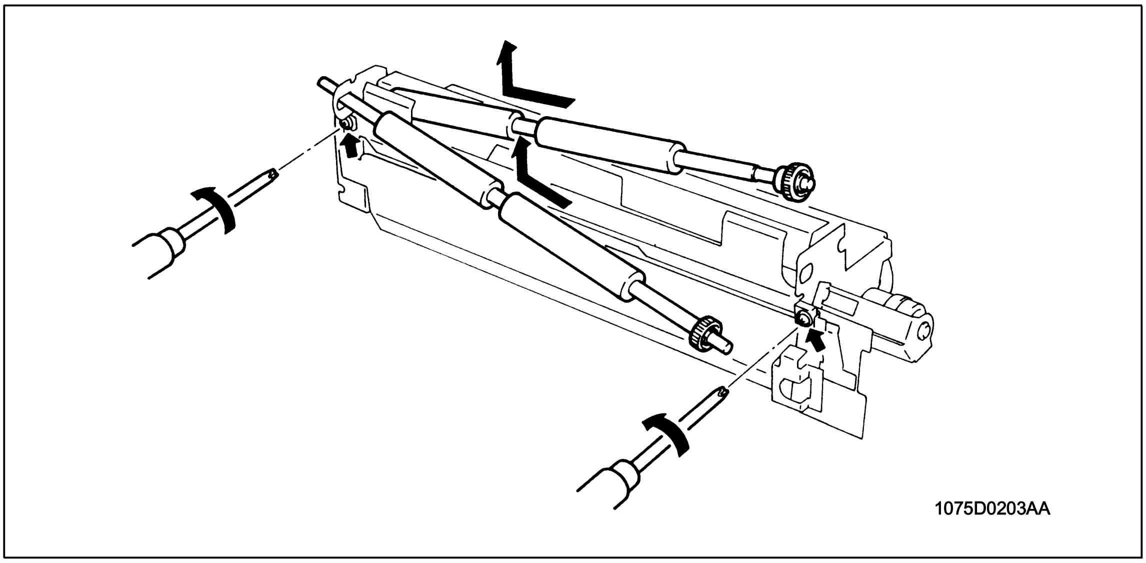
1. Open the Right Door.
2. Using a soft cloth dampened with alcohol, wipe clean each Vertical Transport Roller.

(5) Replacement of the Vertical Transport Rollers

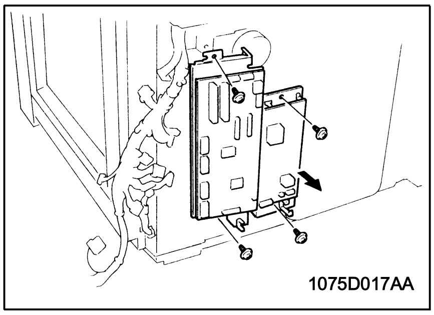
1. Remove the Paper Take-Up Unit.
2. Remove the Misfeed Removal Knob, edge cover, and two pressure springs.
3. Remove four C-clips, two bushings, one gear, and two bearings.


1075D202AA

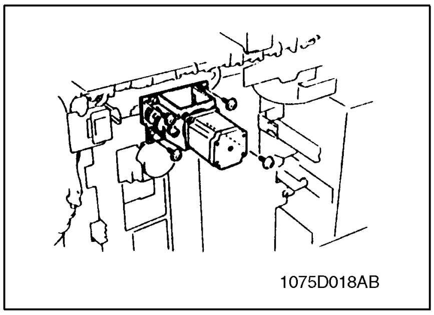
4. Remove the Vertical Transport Roller (white) by sliding it in the direction shown.
5. Loosen two screws on the Paper Guide Plate and remove the Vertical Transport Roller (black) by sliding it in the direction shown.


1075D0203AA

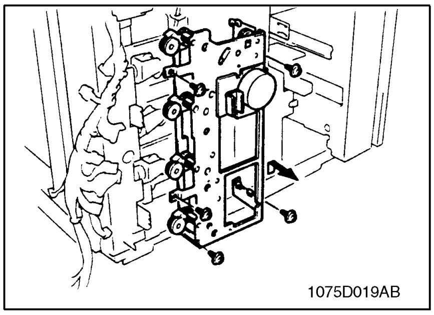
(6) Removal of the Lift-Up Motor (Metric areas only)



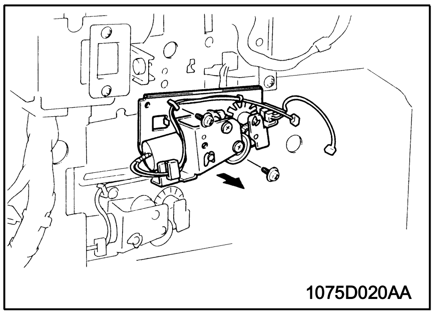
1. Remove the Right Rear Cover and Rear Lower Cover.
2. Unplug the connectors from DC Power Supply Board PWB-C and Drawer S/P Board PWB-F and remove the harness from the wiring saddle.
3. Remove four screws and the mounting brackets for PWB-C and PWB-F.



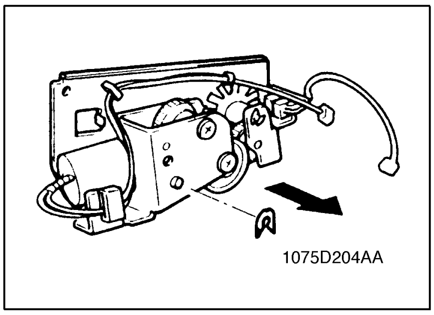
4. Remove the Toner Collecting Bottle. Remove two screws and the metal plate.
5. Remove four screws and unplug one connector to free the Vertical Transport Motor Assy.



6. Remove five screws. Slightly raising the Paper Take-Up Drive Assy, remove it together with the Vertical Transport Motor Assy.

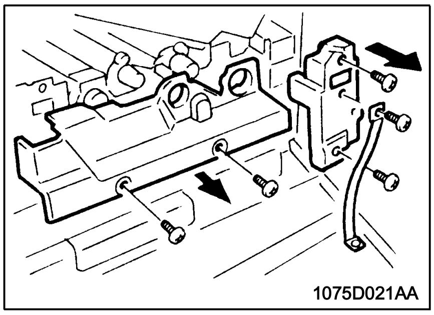


7. Unplug two connectors, remove two screws and the Lift-Up Motor Assy.



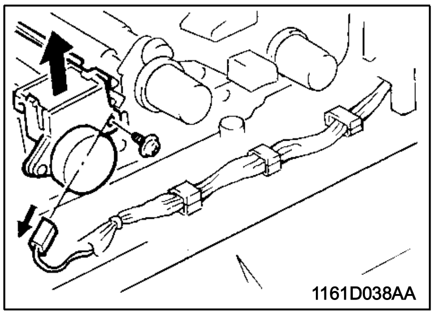
8. Remove the C-clip and the Lift-Up Motor.

(7) Removal of the Synchronizing Rollers Unit

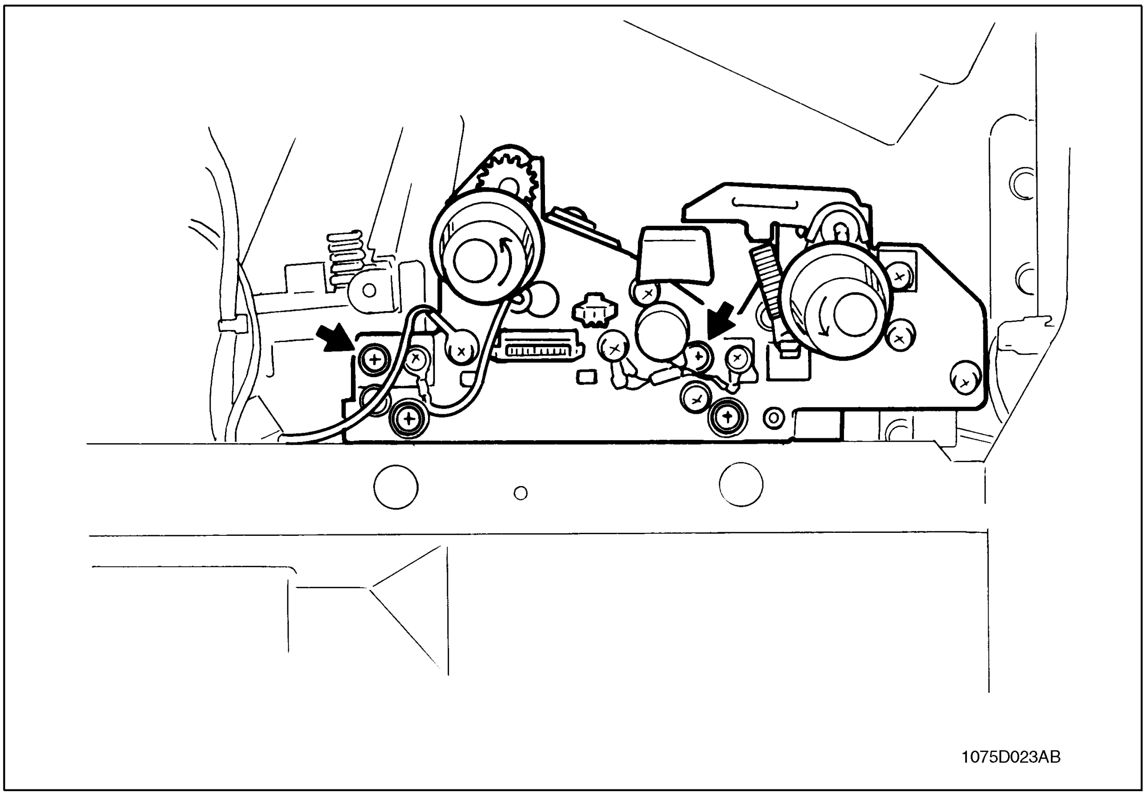


1. Open the Front Lower Door and remove three screws and the Total Counter Cover.
2. Release and swing up the Upper Half of the copier and remove two screws and the Image Transfer Cover.

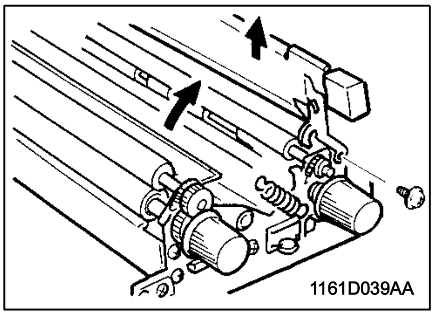
* For EP8015, remove also one screw and the internal cover.



3. Unplug two connectors and remove one screw and the Image Transfer/Paper Separator Coronas.
4. Open the Right Door (Multi Bypass Unit).
5. Unplug two connectors, remove the two screws shown, and pull the Synchronizing Rollers Unit out to the front.



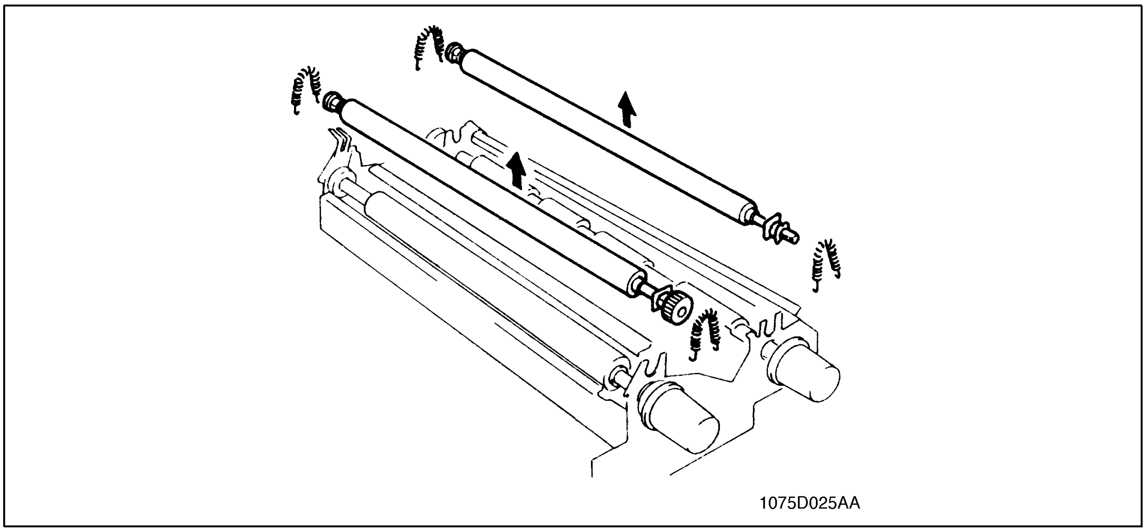
(8) Disassembly of the Synchronizing Rollers Unit



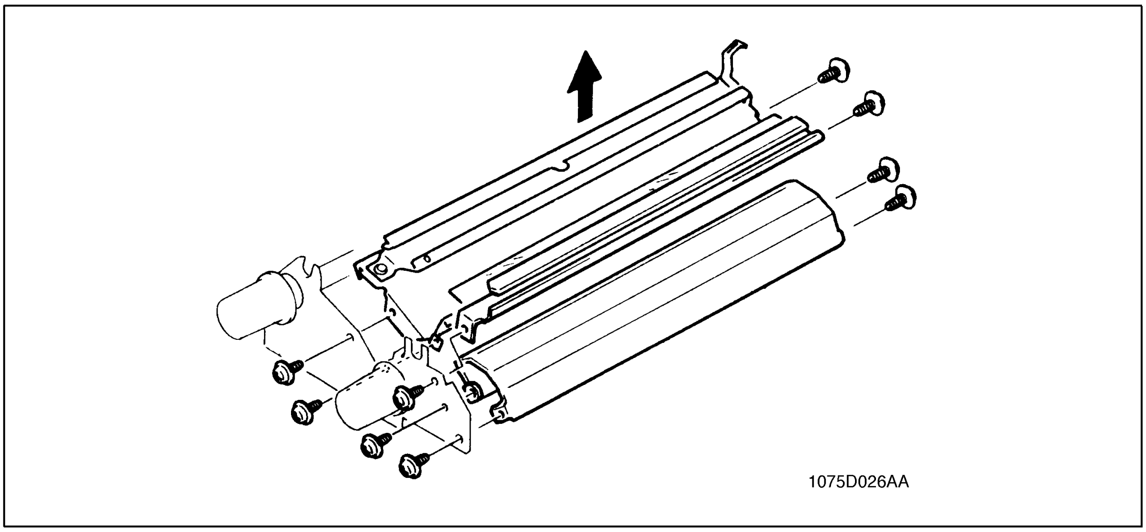
1. Remove the Synchronizing Rollers Unit.
2. Unhook one spring. Remove one pivot screw and lift the unit up.
3. Remove the pressure springs at the front and rear, Upper Transport Roller, and Upper Synchronizing Roller.

NOTE

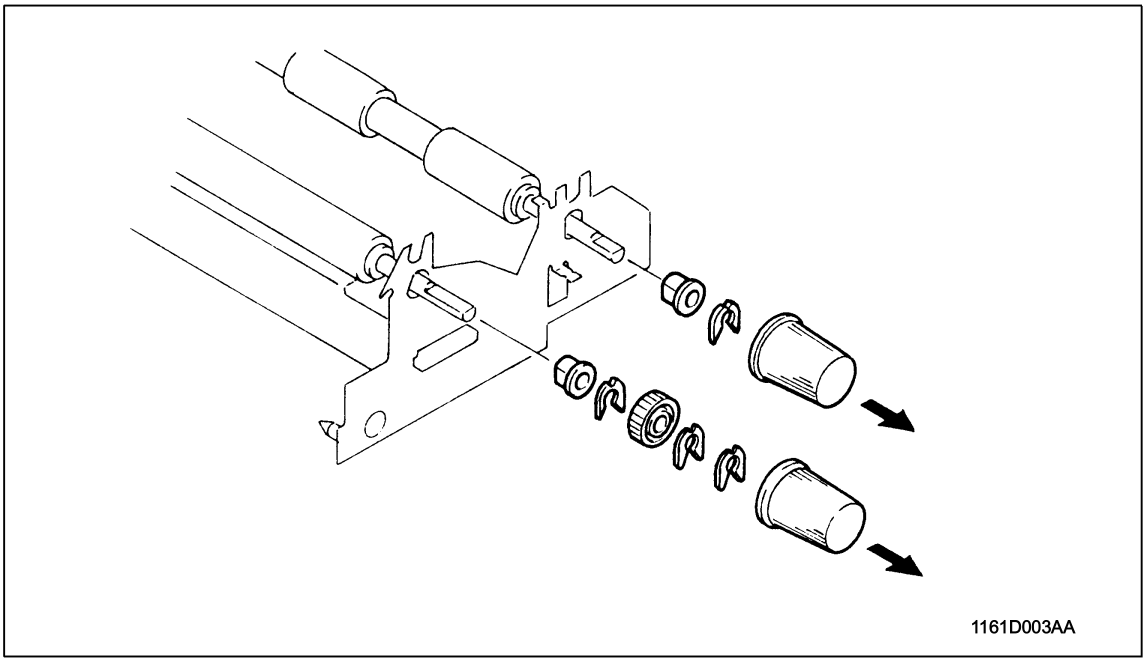
Different types of pressure springs are used for the Transport Roller and Synchronizing Roller. Do not confuse them at reinstallation.



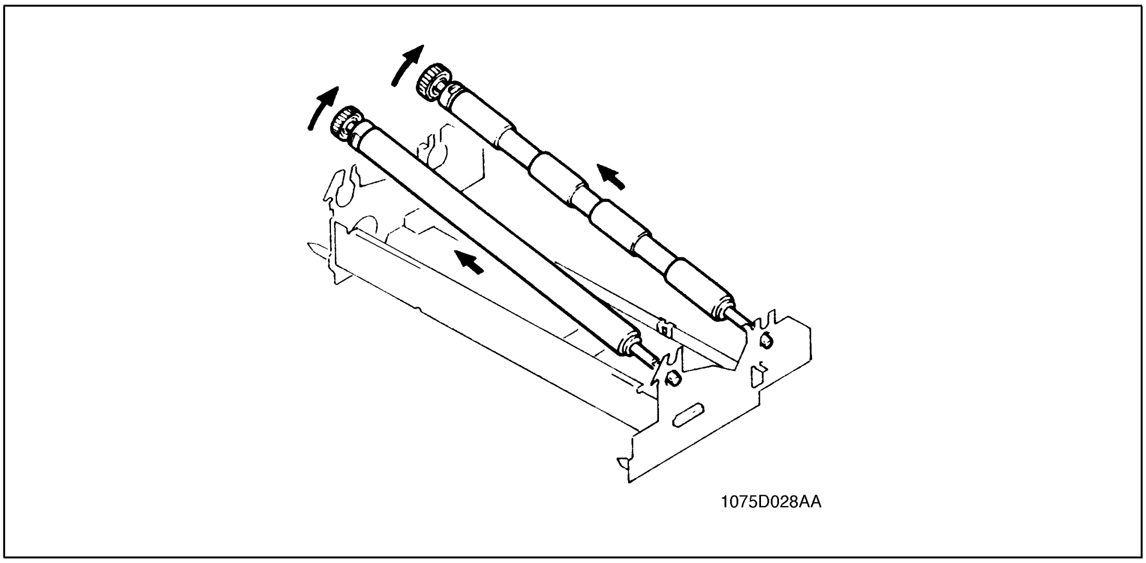
4. Remove four screws, unplug one connector, and remove the Pre-Synchronizing Rollers Guide Plate.
5. Remove five screws, unplug one connector, and remove the Pre-Transport Rollers Guide Plate.



6. Remove the M4 Misfeed Removal Knob and E-ring and pull out the bushing for the Lower Transport Roller.
7. Remove the M2 Misfeed Removal Knob, gear, and E-ring and pull out the bushing for the Lower Synchronizing Roller.



8. Remove the Lower Transport Roller by sliding it in the direction shown.
9. Remove the Lower Synchronizing Roller by sliding it in the direction shown.



(9) Removal of the Suction Belts

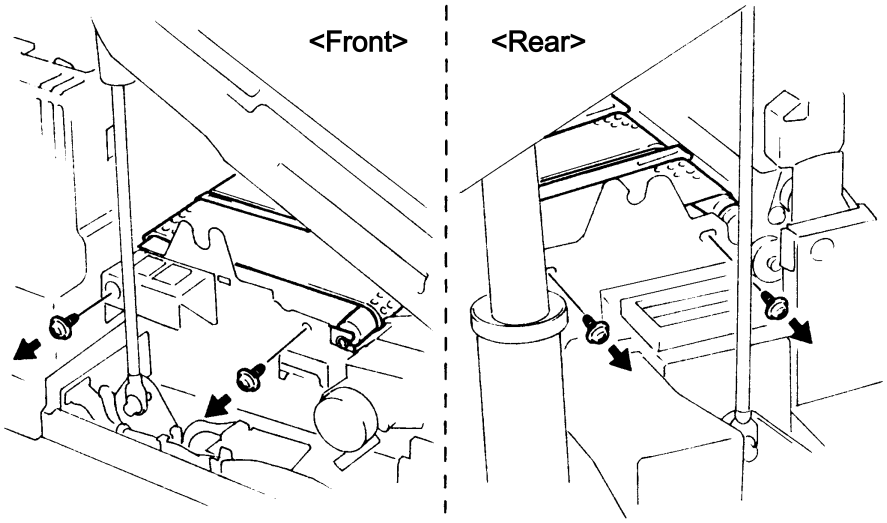
1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Remove two screws and the Image Transfer Cover.
3. Remove four screws and the Suction Unit.

TIP

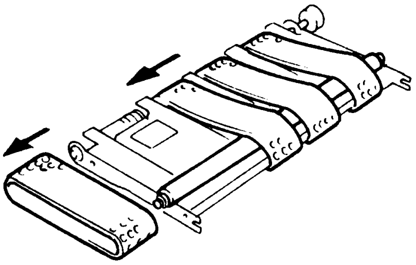
Remove the Fusing Unit first, which will make the job easier.

NOTE

At reinstallation, press the Suction Unit against the Suction Base Plate.



1075D029AA

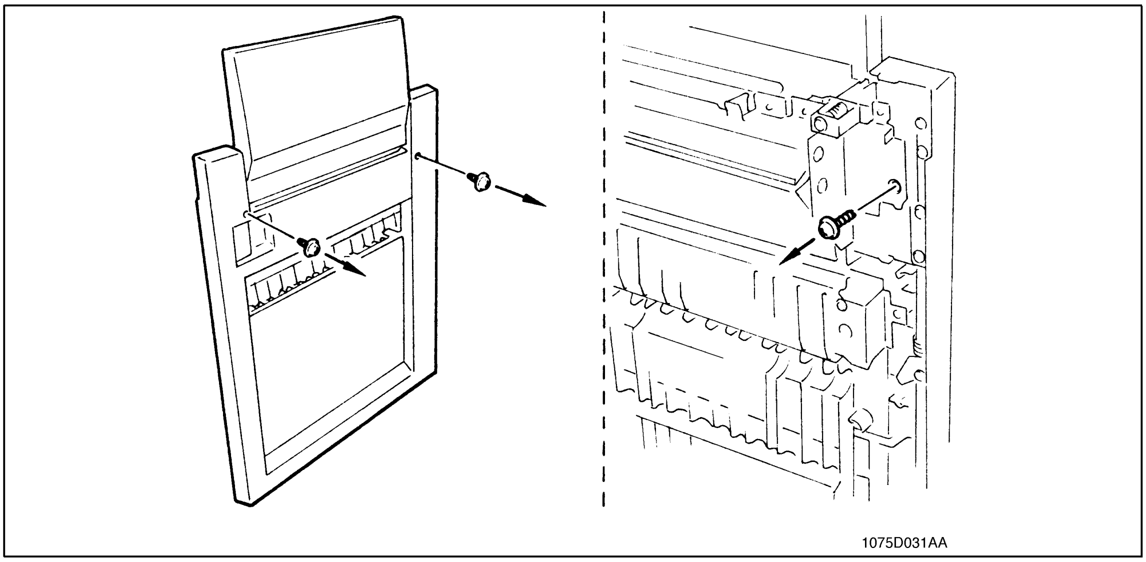


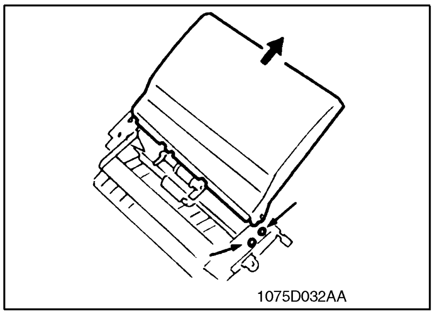
1075D030AA

4. Work the Suction Belts Driven Roller off the Suction Unit Frame to remove the Suction Belts.

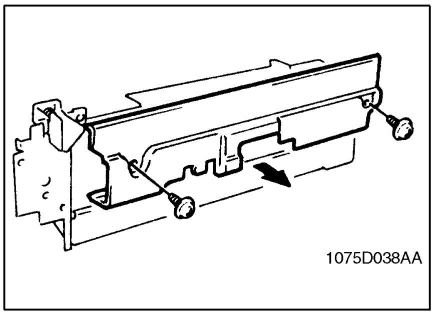
(10) Disassembly of the Multi Bypass Unit

1. Remove the Right Door (Multi Bypass Unit).
2. Remove the three screws shown and the Multi Bypass Unit.


1075D031AA

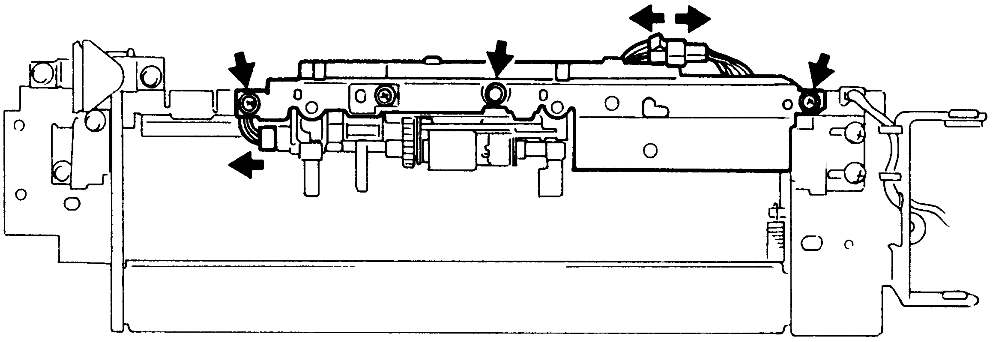

1075D032AA

3. Loosen two screws, slide the pivot shaft to the side and remove the Multi Bypass Table.


1075D038AA

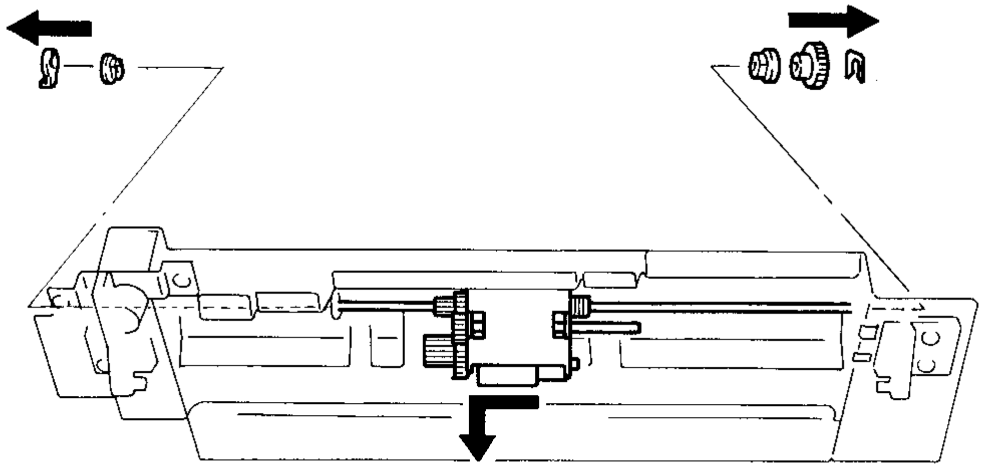
4. Remove two screws and the Manual Feed Paper Pick-Up Solenoid Assy Cover.

5. Remove three screws, unplug two connectors, and remove the Manual Feed Paper Pick-Up Solenoid Assy.



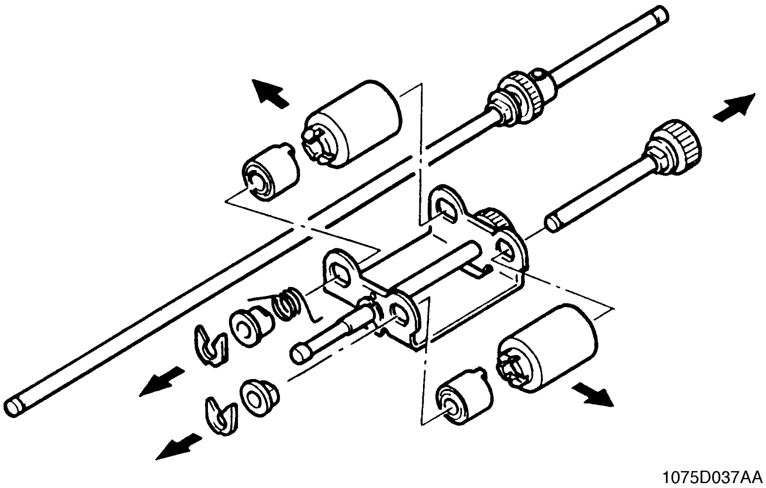
1075D039AA

6. Remove the Paper Take-Up Roll Assy by removing the two C-clips, gear, and bushings shown.

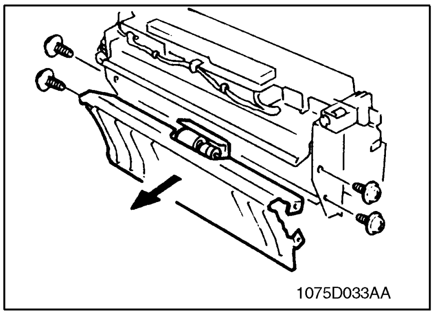


1161D040AA

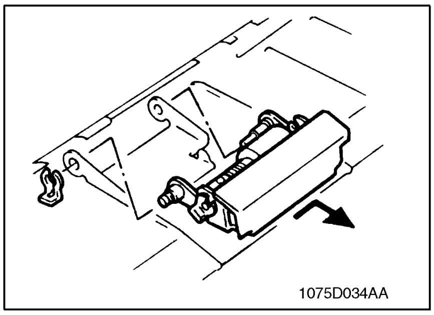
7. Disassemble the Paper Take-Up Roll Assy.



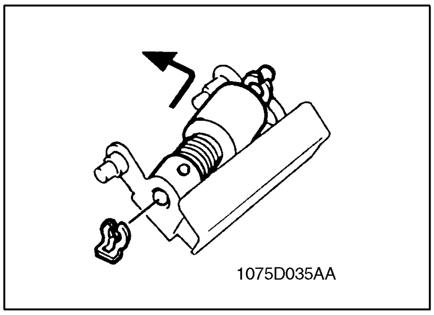
1075D037AA



8. Remove four screws and the Guide Plate.

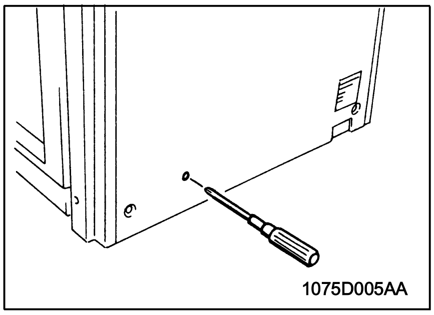


9. Remove the Paper Separator Roll pressure spring.
10. Remove the C-clip and Paper Separator Assy.



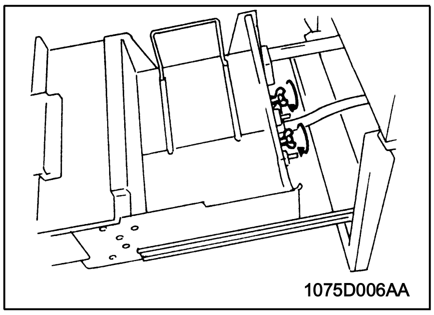
11. Remove the C-clip, slide the bushing off, and remove the Paper Separator Roll Assy.

(11) Removal of the 3rd Drawer



1. Press the Paper Descent Key and slide out the 3rd Drawer.

* If pressing the Paper Descent Key does not allow you to slide out the 3rd Drawer, insert a screwdriver or similar object through the hole in the Rear Lower Cover and unlock the drawer.

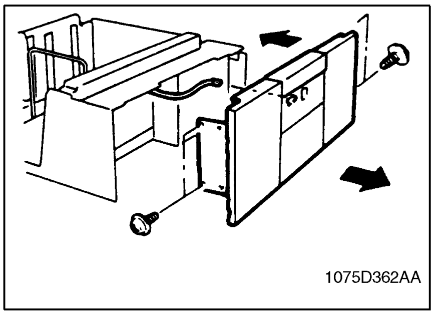


2. Remove four screws on the Slide Rails and pull the 3rd Drawer out to the front.
3. Unplug one connector, loosen two thumbscrews to remove the Connector Board Assy, and remove the 3rd Drawer.

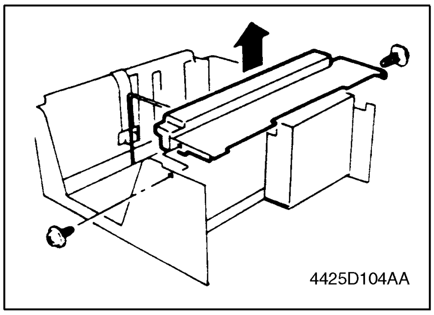
NOTE

During steps 2 and 3, use care not to let the 3rd Drawer fall off the Slide Rails.

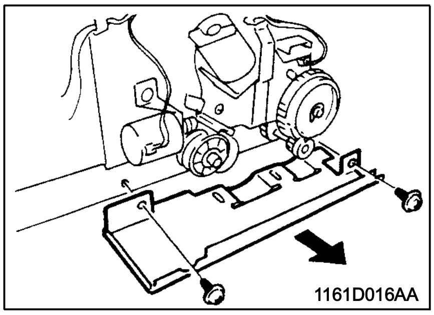
(12) Removal of the 3rd Drawer Wires


1075D362AA

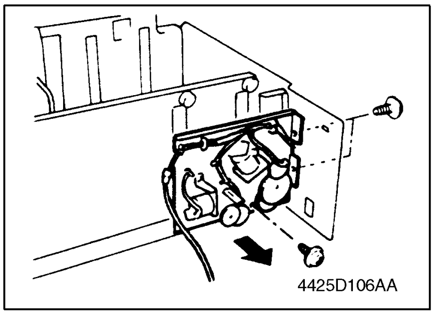
1. Remove the 3rd Drawer.
2. Remove four screws, unplug one connector, and remove the Cover Assy.


4425D104AA

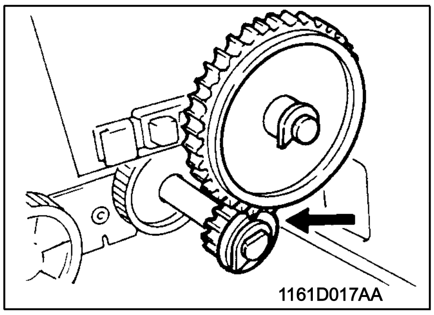
3. Remove two screws and the inner cover.


1161D016AA

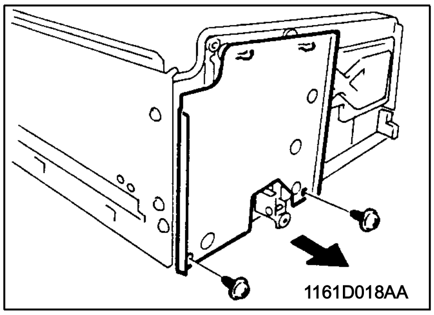
4. Remove two screws and the drive bottom cover.


4425D106AA

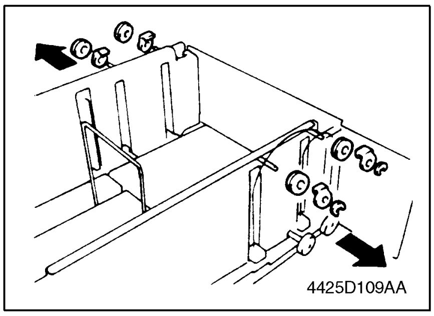
5. Unplug the connector and remove three screws and the drive base plate.


1161D017AA

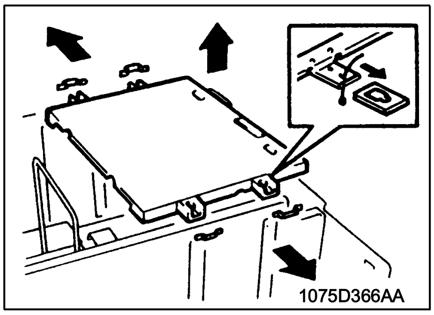
* Ensure correct meshing of gears at reinstallation.


1161D018AA

6. Remove two screws and Rear Cover.


4425D109AA

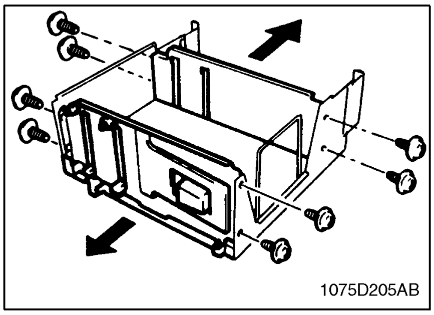
7. Remove two E-rings, four pulley covers and four pulleys.


1075D366AA

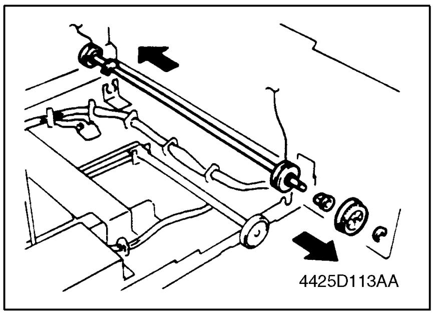
8. Remove four wire holders and the Main Tray.

NOTE

- *Use care not to bend the wire.*
- *Use new wire holders at reinstallation.*

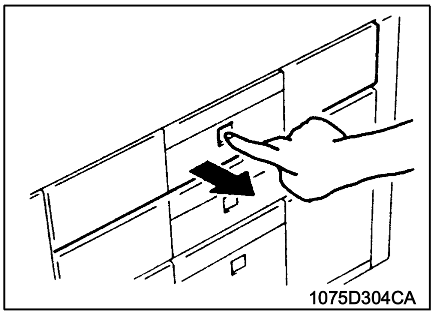

1075D205AB

9. Remove four screws each and the Frame Assy at the front and rear.

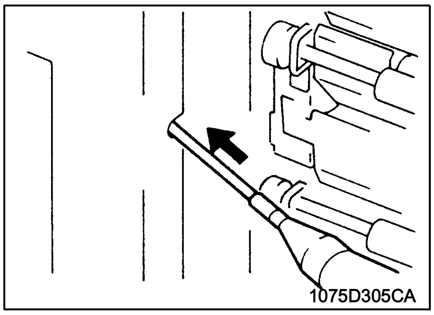

4425D113AA

10. Remove the E-ring, slide the bushing off, and remove the Wire Take-Up Pulley Assy.

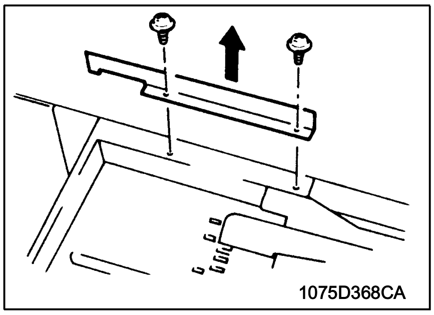
(13) Removal of the Paper Drawer (Inch areas only)


1075D304CA

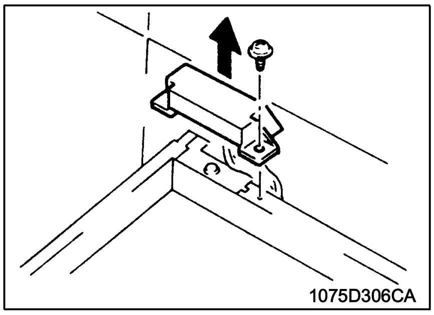
1. Press the Paper Descent Key and slide out the drawer.


1075D305CA

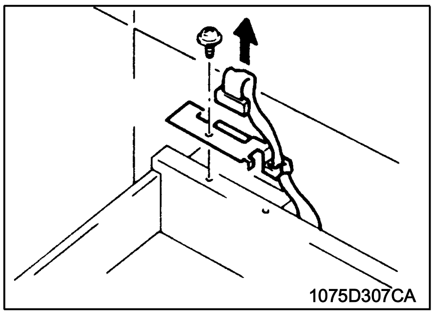
* If pressing the Paper Descent Key does not allow you to slide out the drawer, open the Right Door and push the Lock Release Lever shown in the illustration with a screwdriver or similar object to unlock the drawer.


1075D368CA

2. Remove two screws and the metal plate.

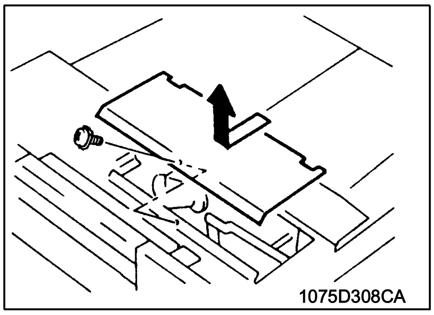

1075D306CA

3. Remove one screw and the connector cover.

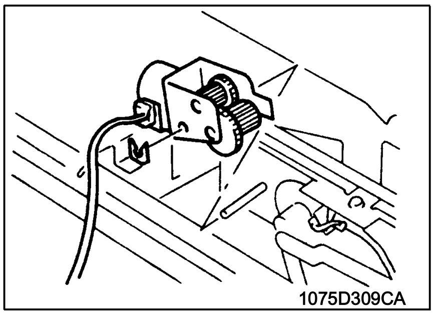

1075D307CA

4. Unplug one connector and remove one screw and flat cable mounting bracket.
5. Remove the Front Right Cover, Drawer Stoppers, and the drawer.

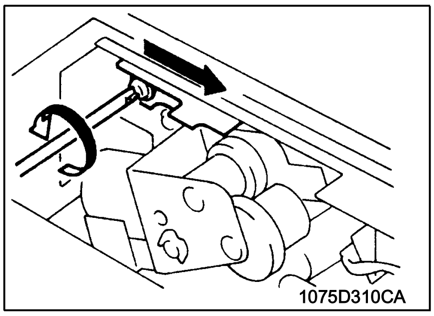
(14) Removal of the Lift-Up Motor (Inch areas only)



1. Slide out the drawer.
2. Remove one screw and the Lift-Up Motor Cover.



3. Unplug one connector.
4. Remove one E-ring and the Lift-Up Motor.



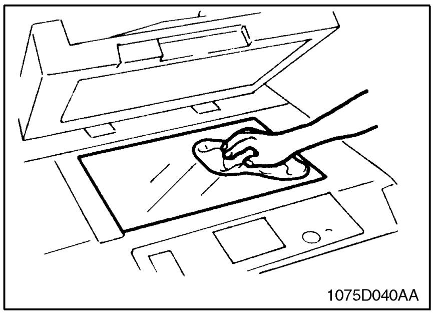
NOTE

If the Lift-Up Motor is replaced with a new one, loosen the screw and, while lightly pressing the Lift-Up Motor fixing bracket in the direction of the arrow, tighten the screw.

1161SBD0204A

2-4. OPTICAL SECTION

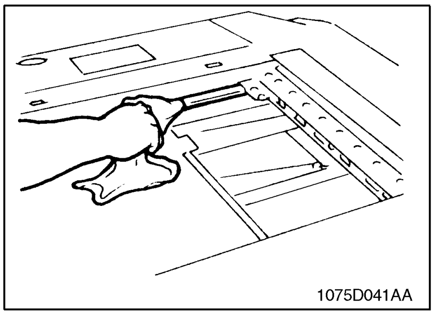
(1) Cleaning of the Original Glass



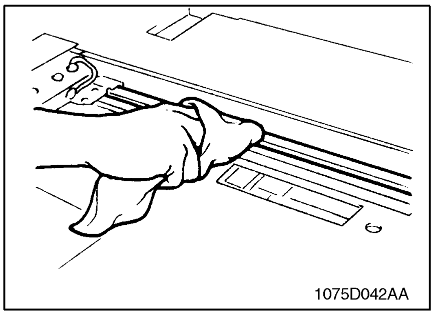
Wipe clean the Original Glass with a soft cloth.

> ***NOTE***
> *The surface of the Original Glass is coated with conductive material. Do not use a wax-based detergent.*
> *An alcohol-dampened cloth may be used if the glass is seriously contaminated.*

(2) Cleaning of the Scanner Rails/Bushings



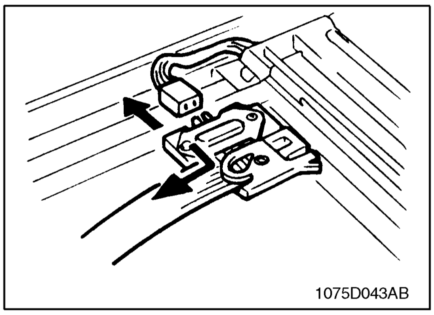
1. Remove the Original Glass.
2. Using a soft cloth, wipe clean the Scanner Rails/Bushings (at the front).



3. Using a soft cloth, wipe clean the Scanner Rails/Bushings (in the rear).

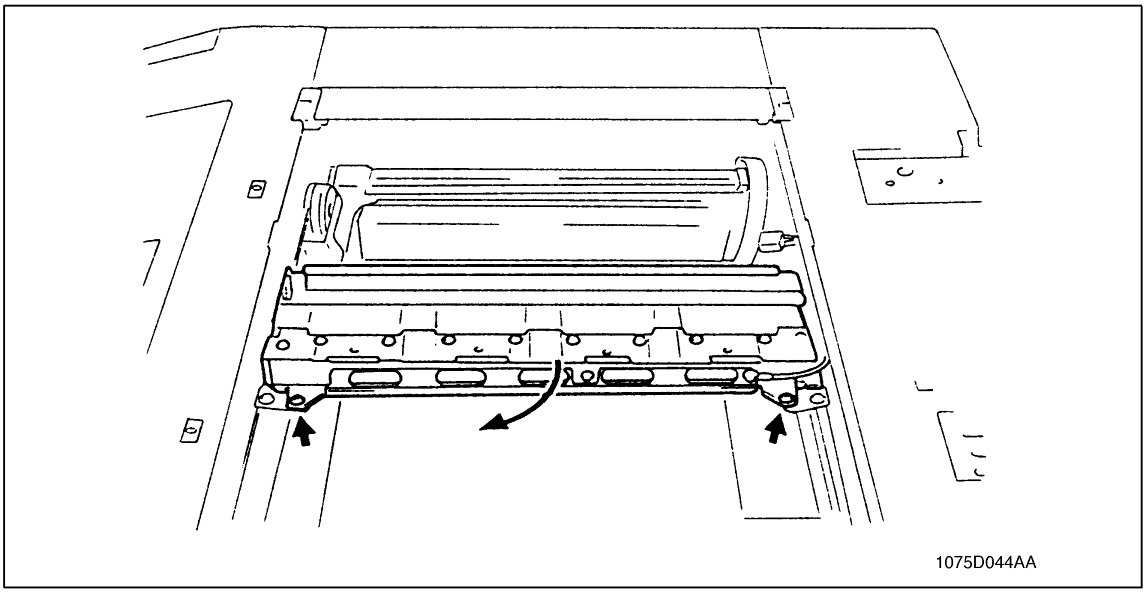
> ***NOTE***
> *Apply lubricant to the Scanner Rails/Bushings after they have been cleaned.*

(3) Removal of the Scanner

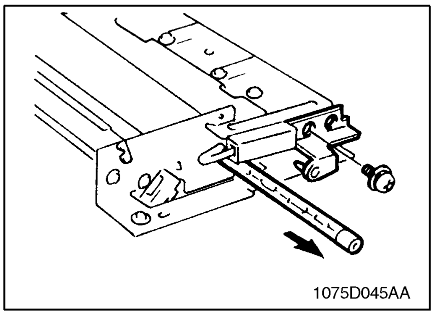


1. Remove the Original Glass.
2. Remove the Exposure Lamp flat cable holder.
3. Unplug one connector.

4. Remove two screws shown and turn the Scanner sideways to remove the Scanner from the copier.

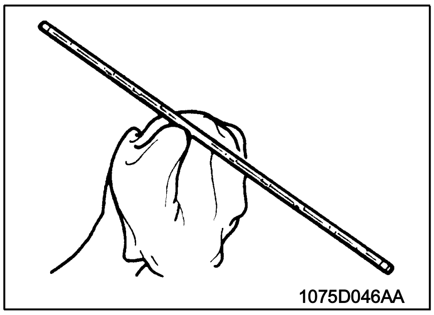


(4) Cleaning of the Exposure Lamp



1. Remove the Scanner.
2. Remove one screw and the Exposure Lamp terminal.
3. Remove the Exposure Lamp.

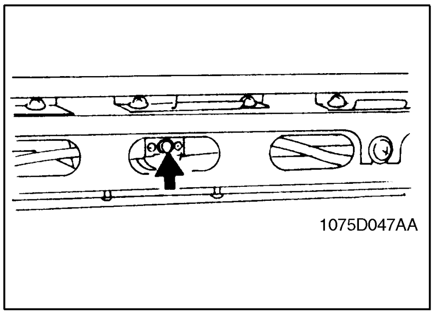
> **NOTE**
> *When the Exposure Lamp has been cleaned or replaced, be sure to make the "adjustment of exposure level in the Auto Exposure mode."*



4. Using a soft cloth dampened with alcohol, clean the lamp by gently wiping its surface in one direction.

> **NOTE**
> *When reinstalling the lamp, point the protruding navel of the lamp toward the opening in the Lamp Reflector so that the protruding navel will not hit against the Lamp Reflector.*

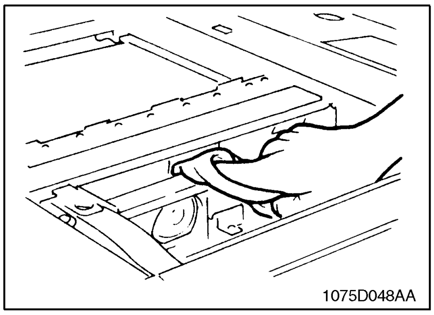
(5) Resetting of the Exposure Lamp Thermal Switch



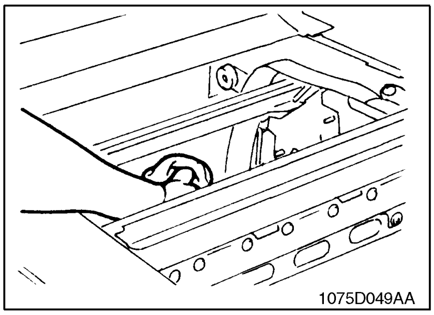
If the Exposure Lamp Thermal Switch has cut off the circuit, press the red reset button shown, which resets the Exposure Lamp Thermal Switch.

> **NOTE**
> *Perform this step after unplugging the power cord.*

(6) Cleaning of the 1st, 2nd, and 3rd Mirrors and Original Size Detecting Sensors

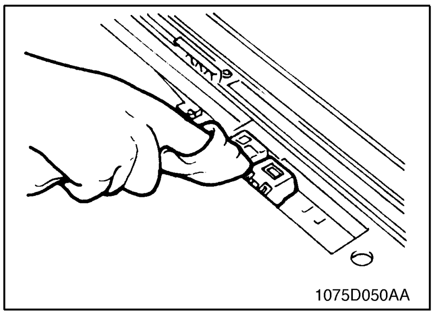


1. Remove the Original Glass.
2. Wipe clean the 1st Mirror with a soft cloth.



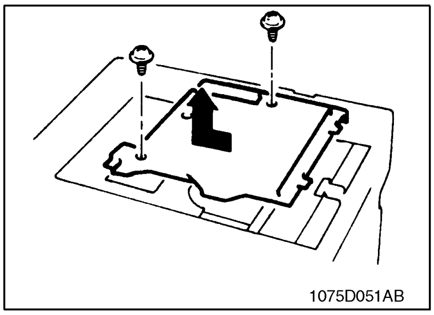
3. Wipe clean the 2nd and 3rd Mirrors with a soft cloth.

> **NOTE**
> *After the 1st, 2nd, and 3rd Mirrors have been cleaned, make the "adjustment of exposure level in the Auto Exposure mode."*

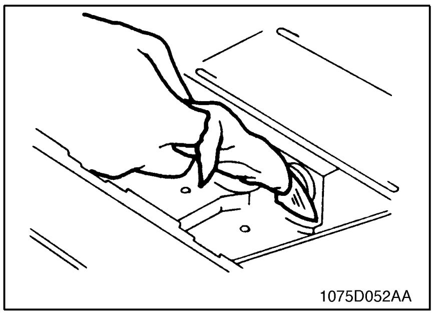


4. Clean the Original Size Detecting Sensors with a soft cloth.

(7) Cleaning of the Lens and 4th and 5th Mirrors

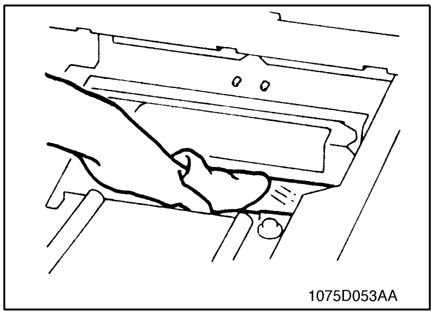


1. Remove the Original Glass.
2. Remove two screws and the Optical Cover.



3. Wipe clean the Lens with a soft cloth.

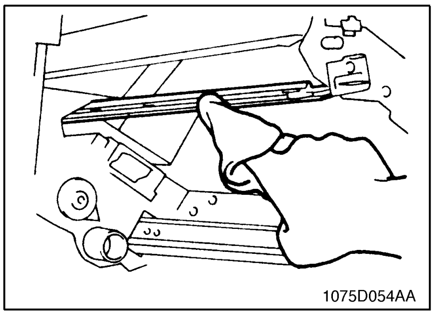
* If the Lens is hard to clean, move it in the enlargement or reduction direction as necessary.



4. Wipe clean the 4th and 5th Mirrors with a soft cloth.

> **NOTE**
> *After the Lens and 4th and 5th Mirrors have been cleaned, make the "adjustment of exposure level in the Auto Exposure mode."*

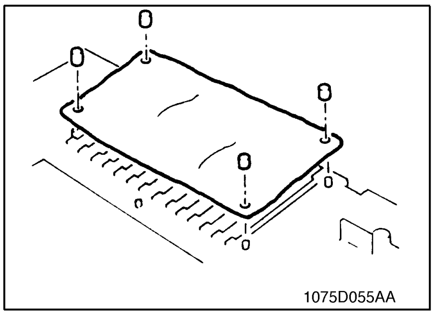
(8) Cleaning of the 6th Mirror and Image Erase Lamp



1. Open the Front Lower Door, slide out the PC Unit and release and swing up the Upper Half of the copier.
2. Wipe clean the 6th Mirror and Image Erase Lamp with a soft cloth.

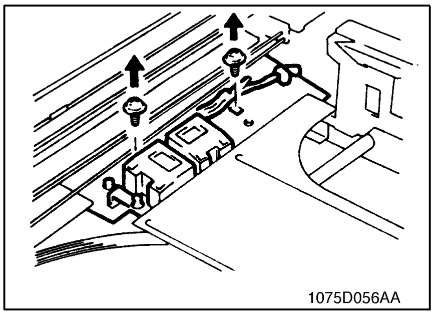
> **NOTE**
> *After the 6th Mirror has been cleaned, make the "adjustment of exposure level in the Auto Exposure mode."*

(9) Replacement of the Cooling Fan Filter

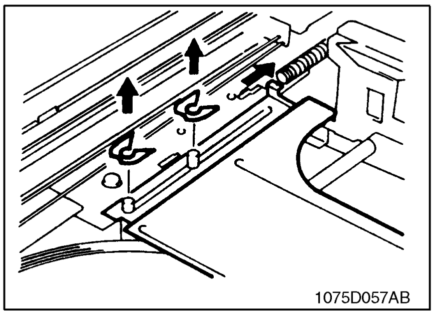


1. Remove the Left Upper Cover.
2. Remove four rubber stoppers and replace the Cooling Fan Filter.

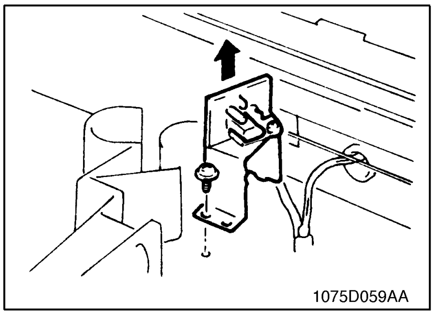
(10) Removal of the Lens Drive Cable



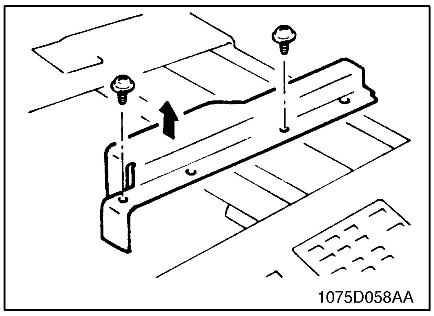
1. Remove the Original Glass and Optical Cover.
2. Remove two screws to free the Original Size Detecting Sensors mounting bracket.



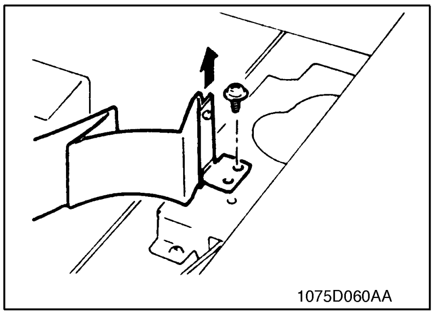
3. Remove one spring, two E-rings, and the Lens Cover.


1075D059AA

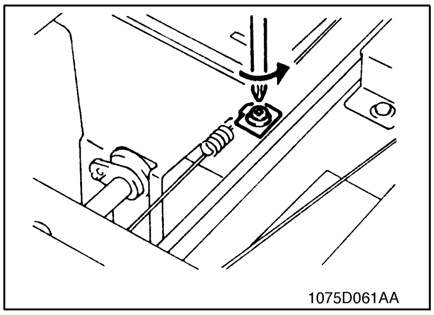
4. Remove one screw and the AE Sensor mounting bracket.


1075D058AA

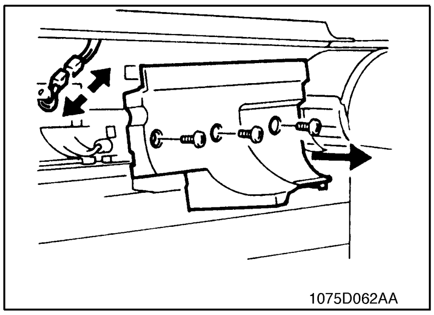
5. Remove two screws and the Lens Drive Cover.


1075D060AA

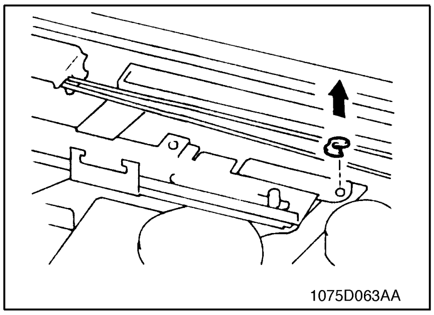
6. Remove one screw and the Light Blocking Mylar mounting bracket.


1075D061AA

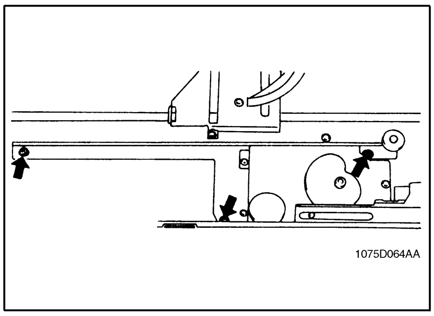
7. Remove one screw that secures the Lens Drive Cable.


1075D062AA

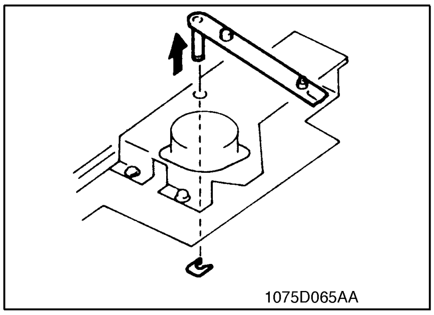
8. Open the Front Upper Door, swing out the Toner Bottle Holder and remove three screws and the cover shown.
9. Unplug the connector of the Lens X Direction Drive Motor.


1075D063AA

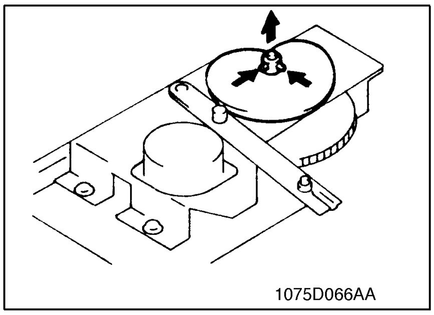
10. Snap off the E-ring that secures the 4th/5th Mirrors Moving Lever.


1075D064AA

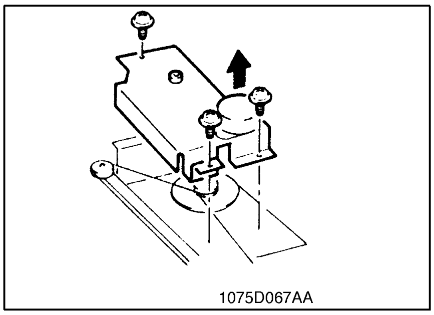
11. Remove three screws and the Lens Drive Motor Assy.


1075D065AA

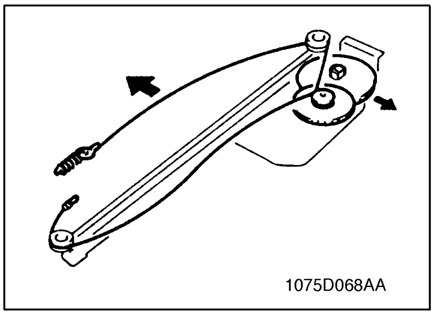
12. Snap off the E-ring and remove the 4th/5th Mirrors Positioning Lever.


1075D066AA

13. Loosen the screw that secures the cam and remove the cam.

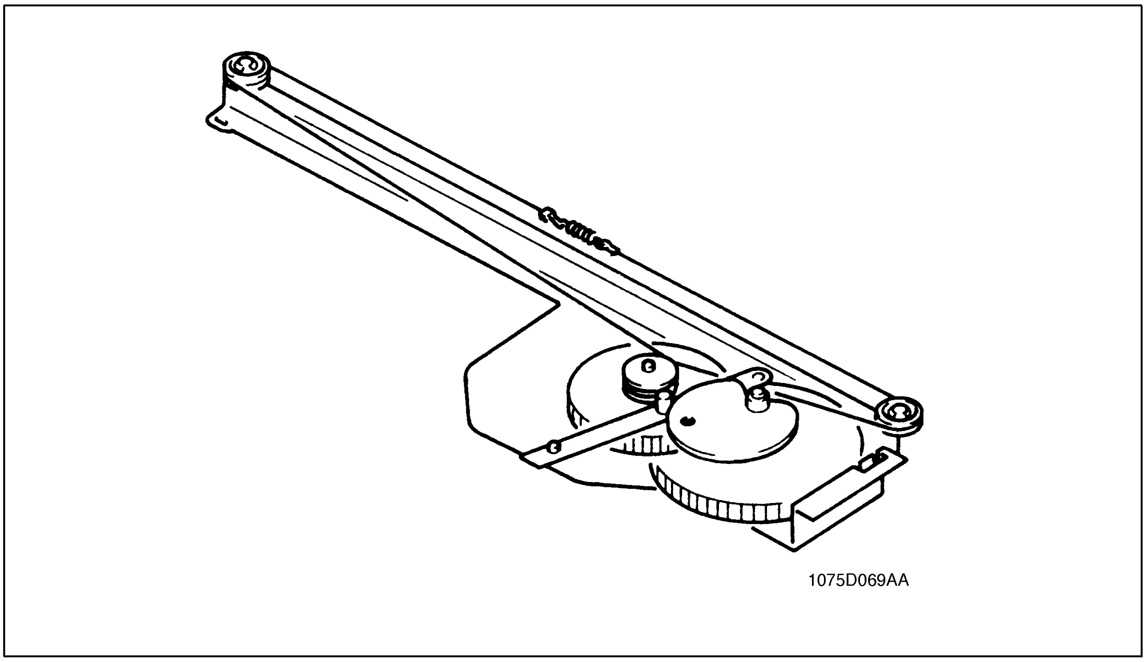

1075D067AA

14. Remove three screws and the upper frame.


1075D068AA

15. Work off the cable and remove the drive gear.

(11) Winding of the Lens Drive Cable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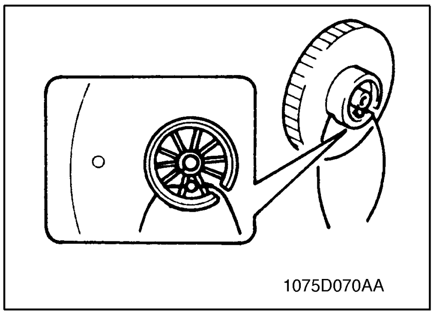
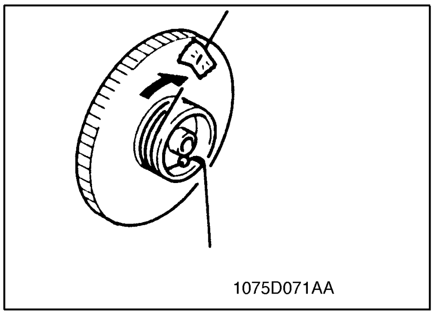

1075D070AA

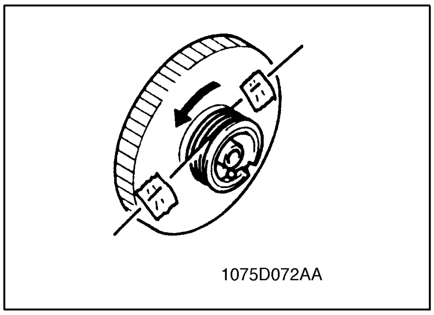
1. Hold the Cable Drive Gear with the bead at the bottom.


1075D071AA

2. Wind the length of the cable with a bead on its end four and 1/2 turns clockwise around the Cable Drive Gear, working from the back to the front side. Then, tape it.

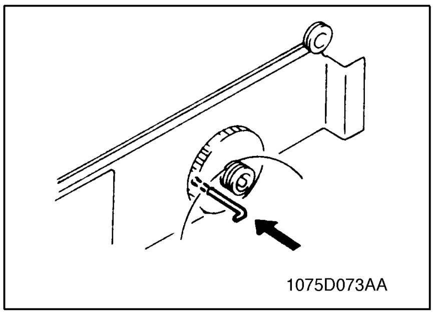
NOTE

When winding the cable, make sure that no part of the cable rides on the other.

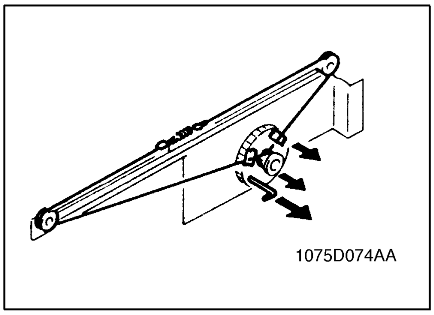


3. Wind the other length of the cable two and 1/2 turns counterclockwise around the Cable Drive Gear, working from the front to back side. Then, tape it.

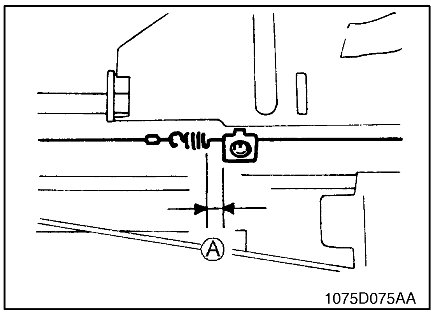
> **NOTE**
>
> *When winding the cable, make sure that no part of the cable rides on the other.*



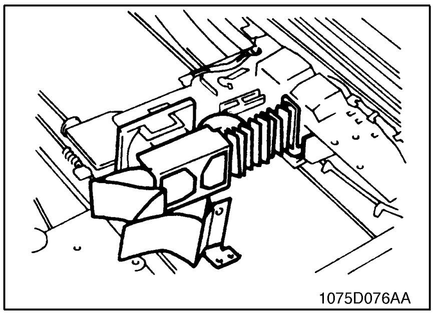
4. Place the Cable Drive Gear onto the lower frame and insert a wrench into the hole to position the gear.



5. Wind both lengths of the cable around the pulleys and pull the spring to connect the two lengths.
6. Remove the wrench and peel off the two pieces of tape.
7. Mount the Lens Drive Motor Assy by reversing the order of disassembly. Do not, however, secure the cam into position.

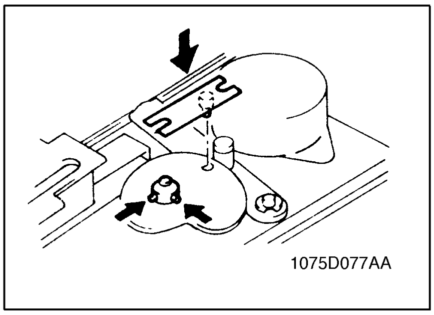


* When securing the cable to the Lens Base Plate, make sure that dimension A shown measures 4 ± 1 mm.



8. Turn ON the Power Switch to bring the Lens to the full size position.

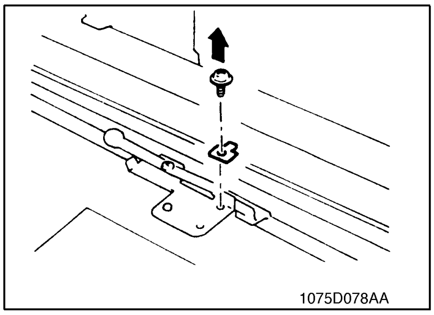
> ***NOTE***
> *Be careful, the Scanner moves when the Power Switch is turned ON.*



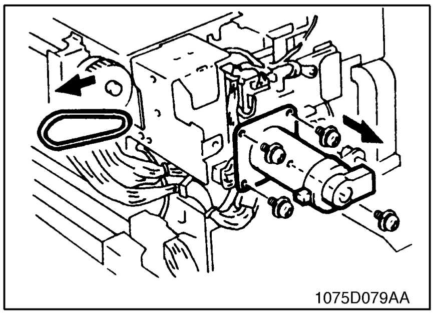
9. Install the 4th/5th Mirrors Positioning Jig and, when the hole in the cam is aligned with the pin on the jig, tighten the set screw.

> ***NOTE***
> *From a safety viewpoint, turn OFF the Power Switch before tightening the set screw that secures the cam.*

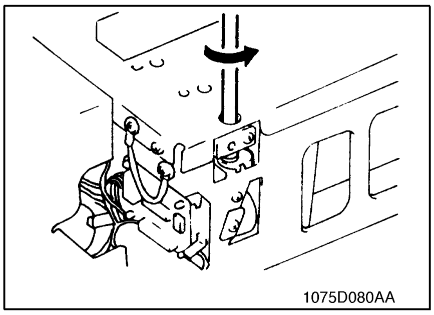
(12) Removal of the Scanner Drive Cables



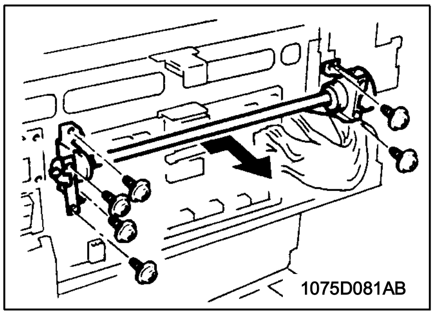
1. Remove the ADF, Rear Upper Cover, Upper Rear Cover, Control Panel Unit, Right Upper Cover, Left Upper Cover, Upper Left Cover, and Original Glass.
2. Remove the Scanner.
3. Remove the Scanner positioning screws, one each at the front and rear, and the Scanner fixing bracket.



4. Unplug one connector and remove four screws and the Scanner Motor.
5. Remove the timing belt.

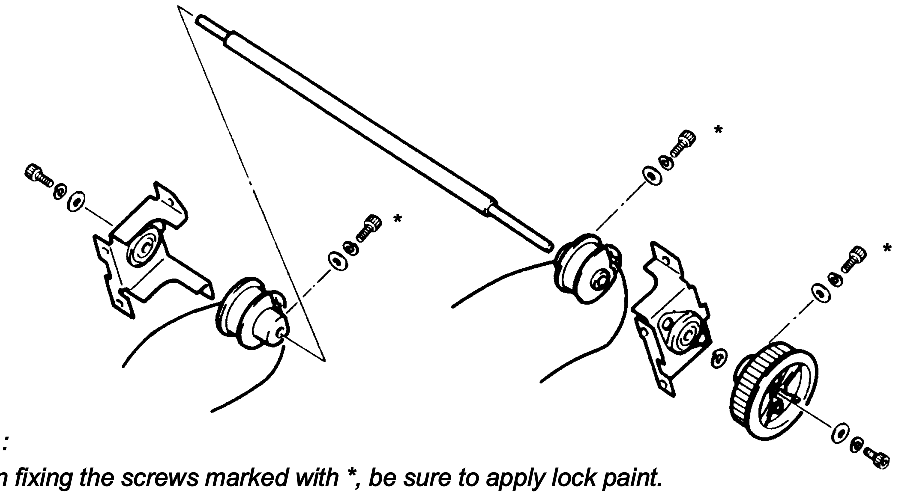


6. Using a flat-blade screwdriver, loosen the spring anchors to unhook the beads of the front and rear Scanner Drive Cables.



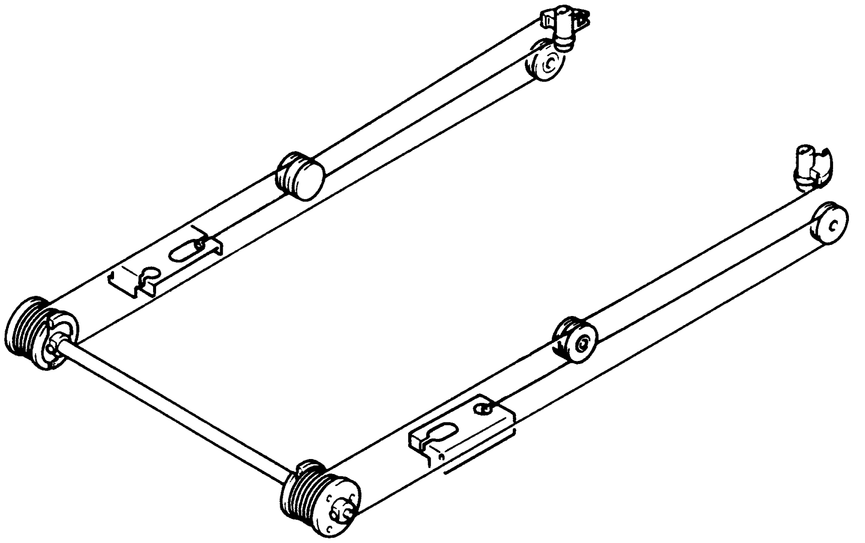
7. Remove six screws. Remove the holding brackets at the front and rear of the Scanner Drive Shaft and the Scanner Drive Shaft Assy.

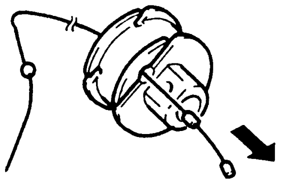
8. Disassemble the Scanner Drive Shaft Assy as illustrated below.



Note :
*When fixing the screws marked with *, be sure to apply lock paint.*
(The same applies also to the pulley fixing screws of the Scanner Motor.)

(13) Winding of the Scanner Drive Cables





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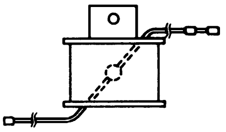
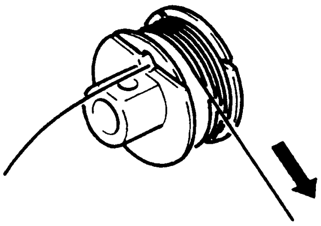
Front

1. Pass the Scanner Drive Cable into the pulley as shown so that the round bead is at the center of the pulley.

<How to Install the Cable>

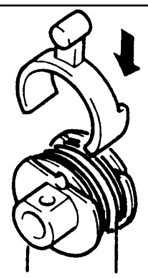


1075D363AA



1075D209AA

2. Holding the pulley as shown, wind the length of cable with two fixing beads clockwise five turns around the pulley, working from the back to front side.

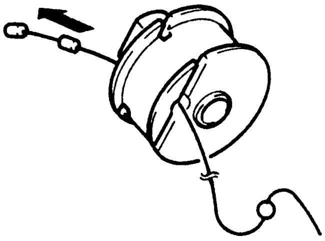


1075D210AA

3. Wind the length of cable with only one fixing bead counter-clockwise three turns, working from the front to the back side.
   Then, slip the Cable Holding Jig onto the pulley.

NOTE

Make sure that no part of the cable rides on the other.

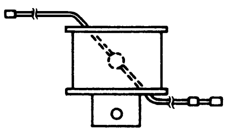


1075D211AA

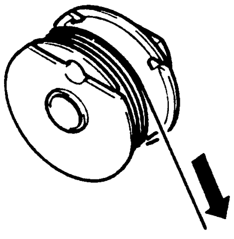
Rear

4. Pass the Scanner Drive Cable into the pulley as shown so that the round bead is at the center of the pulley.

<How to Install the Cable>

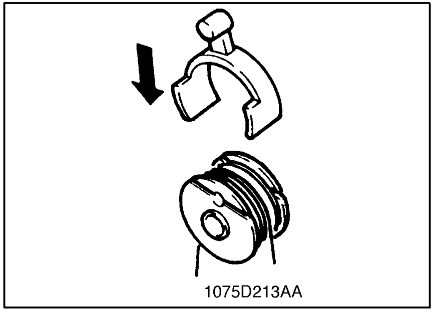


1075D364AA



1075D212AA

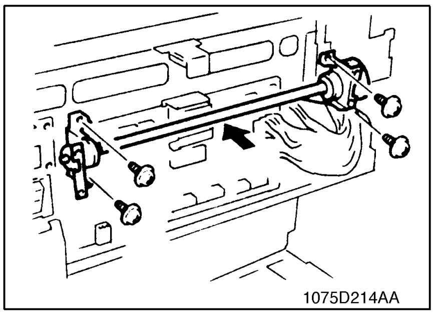
5. Holding the pulley as shown, wind the length of cable with two fixing beads clockwise five turns around the pulley, working from the back to front side.



6. Wind the length of cable with only one fixing bead counterclockwise three turns, working from the front to the back side. Then, slip the Cable Holding Jig onto the pulley.

NOTE

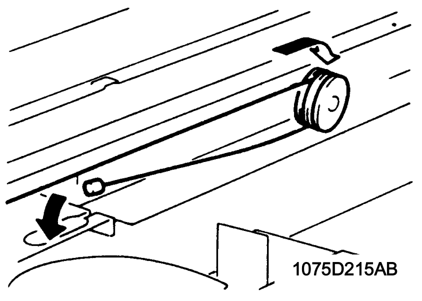
Make sure that no part of the cable rides on the other.



7. Assemble the Scanner Drive Shaft Assy and install it in the copier.

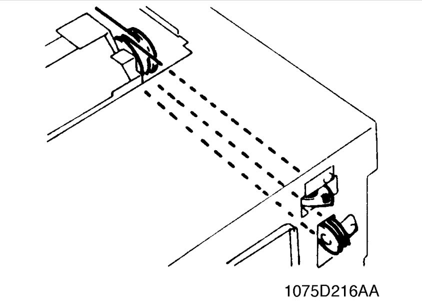
NOTE

When securing the Scanner Drive Shaft Assy, press it against the optical frame.



8. Loop the length of cable with one fixing bead around the outer pulley for the 2nd/3rd Mirrors Carriage and hook the fixing bead to the adjustable anchor.

* The illustration shows the front side of the copier. The same applies to the rear side.



9. Loop the length of cable with two fixing beads around the pulley on the frame and the inner pulley for the 2nd/3rd Mirrors Carriage and hook the fixing bead to the spring anchor.

* The illustration shows the front side of the copier. The same applies to the rear side.

10. Remove the Cable Holding Jigs.
11. Mount the Scanner Motor and timing belt and make the Scanner Motor timing belt adjustment. (For details, see “ADJUSTMENT.”)
12. Mount the Scanner and perform the “Focus-Positioning of the Scanner and 2nd/3rd Mirrors Carriage.” (For details, see “ADJUSTMENT.”)

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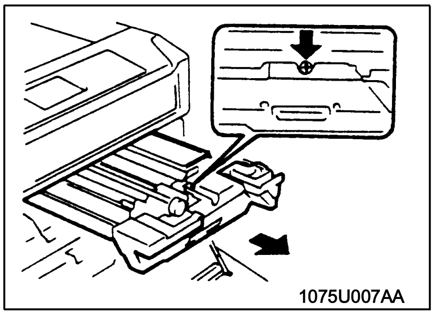
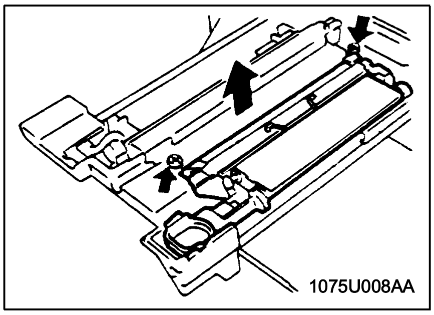
2-5. PC UNIT

(1) Sliding Out the PC Unit



1. Open the Front Lower Door.
2. Loosen one screw and slide out the PC Unit.

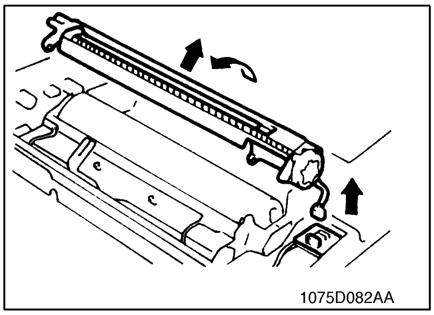
(2) Removal of the Developing Unit



1. Slide out the PC Unit.
2. Loosen two screws and remove the Developing Unit.

* For the Developing Unit, see 2-7. DEVELOPING UNIT.

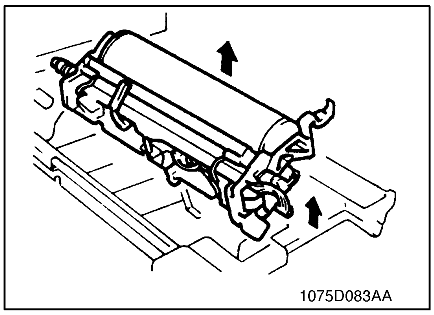
(3) Removal of the PC Drum Charge Corona



1. Remove the Developing Unit.
2. Unplug one connector and remove the PC Drum Charge Corona.

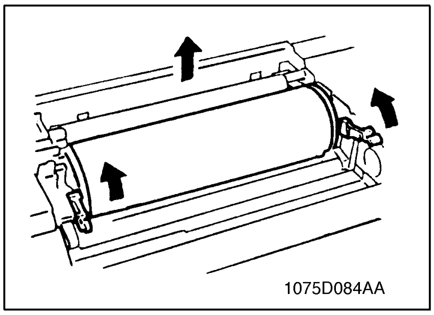
* For the PC Drum Charge Corona, see 2-6. PC DRUM CHARGE CORONA AND IMAGE TRANSFER/PAPER SEPARATOR CORONAS.

(4) Removal of the Cleaning Unit



1. Remove the PC Drum Charge Corona.
2. Unplug one connector and remove the Cleaning Unit.

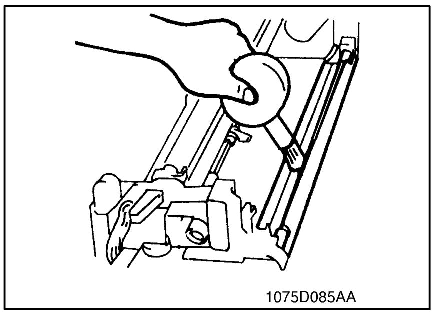
(5) Replacement of the PC Drum



1. Remove the PC Drum Charge Corona.
2. Unlock two PC Drum Lock Levers and remove or replace the PC Drum.

NOTE
When the PC Drum has been replaced, clear the "PC Drum" count of "Port/Option 3/3" available from "Counter" under the Tech. Rep. mode and make the adjustment of exposure level in the Auto Exposure mode.

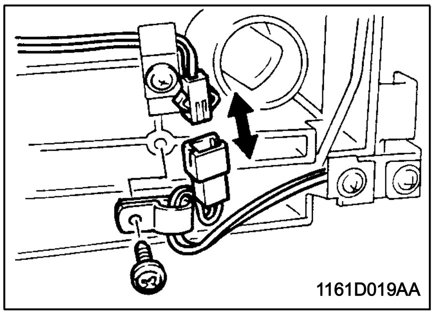
(6) Cleaning of the Pre-Image Transfer Erase Lamp



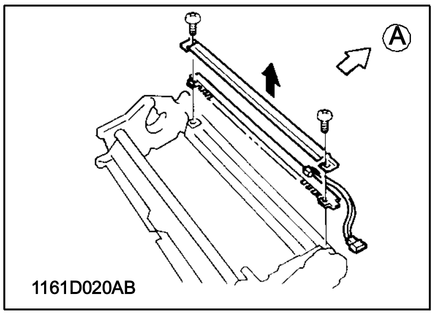
1. Remove the PC Drum.
2. Blow all foreign matter off the Pre-Image Transfer Erase Lamp with a blower brush.

* If the lamp is seriously contaminated, wipe its surface clean of dirt with a soft cloth.

(7) Removal of the Pre-Image Transfer Erase Lamp



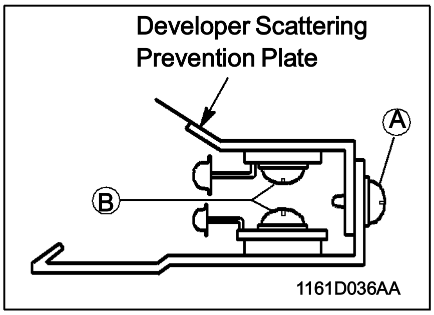
1. Remove the PC Drum and the Cleaning Unit.
2. Remove one screw and cord clamp.
3. Unplug one connector (two for EP8015).



EP6001

4. Remove two screws from the Developer Scattering Prevention Plate and remove the Pre-Image Transfer Erase Lamp.

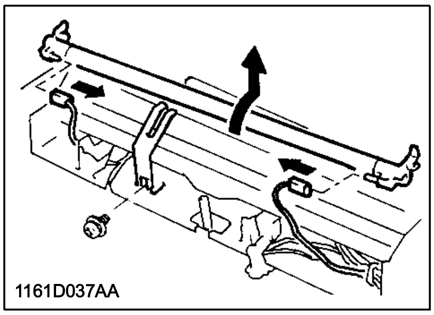
* When reinstalling the Developer Scattering Prevention Plate, secure it in position while pressing it outward (in the direction of Ⓐ).



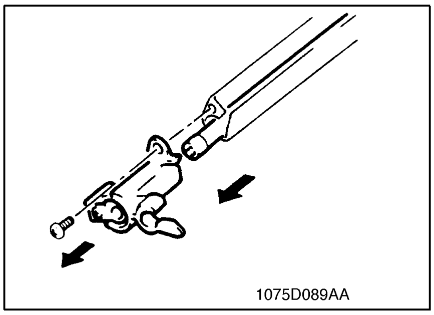
EP8015

4. Remove screw Ⓐ shown and remove the Developer Scattering Prevention Plate.
5. Remove two screws Ⓑ shown and remove the two Pre-Image Transfer Erase Lamps.

(8) Removal of the Main Erase Lamp

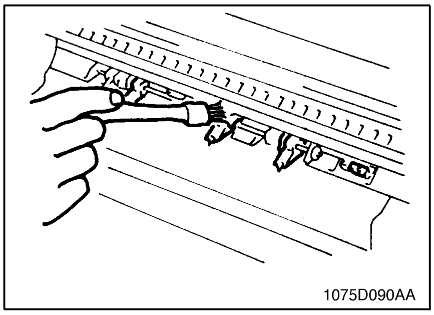


1. Remove the PC Drum.
2. Remove one screw and flat spring.
3. Unplug two connectors and remove the Main Erase Lamp holder.



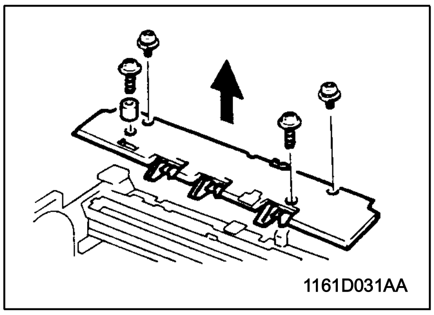
4. Remove one screw and the Main Erase Lamp.

(9) Cleaning of the Pre-Cleaning Erase Lamp, Toner Antispill Seal, AIDC Sensor, and PC Drum Paper Separator Fingers



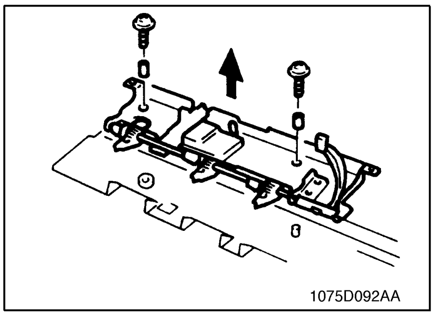
1. Remove the PC Drum.
2. Using a brush or soft cloth, clean the Pre-Cleaning Erase Lamp, Toner Antispill Seal, AIDC Sensor, and PC Drum Paper Separator Fingers.

(10) Disassembly of the PC Drum Paper Separator Fingers Assy



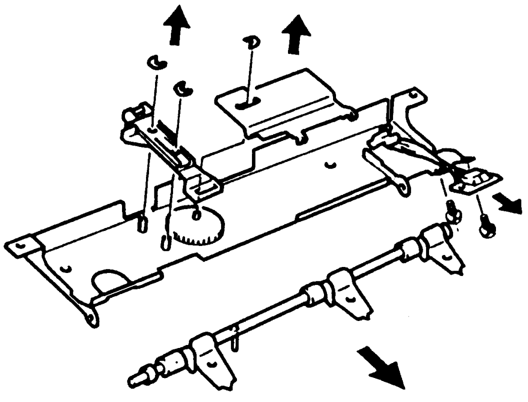
1. Remove the PC Drum.
2. Remove the Cleaning Unit.
3. Turn over the Cleaning Unit, remove four screws, unplug one connector, and remove the PC Drum Paper Separator Fingers Assy.

* One of the screws is provided with a collar. Be careful not to lose it.



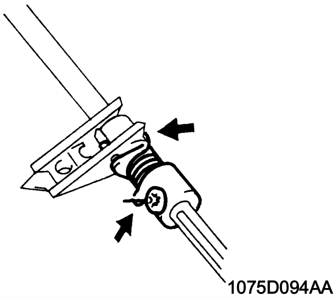
4. Remove two screws and PC Drum Paper Separator Fingers mounting bracket.

5. Remove the PC Drum Paper Separator Fingers and AIDC Sensor as illustrated below.



NOTE

During removal and reinstallation of the PC Drum Paper Separator Fingers, use care not to damage the tips of the fingers (scratches, bend, etc.).
Be also careful not to hurt yourself with the tips of the fingers.

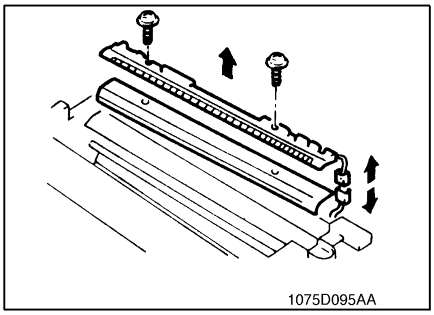


6. When reinstalling the PC Drum Paper Separator Fingers, be sure to rehook the torsion spring correctly as shown. After reinstallation, check that the fingers move smoothly.

NOTE

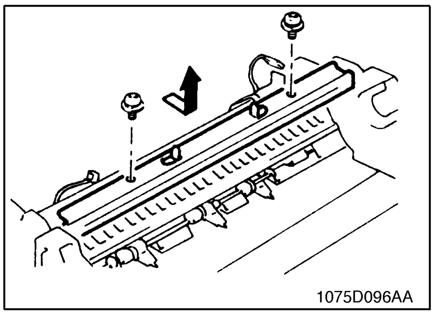
Whenever the PC Drum Paper Separator Fingers have been removed and reinstalled, be sure to adjust the position of the PC Drum Paper Separator Fingers. For details, see "ADJUSTMENT."

(11) Removal of the Toner Antispill Seal and Pre-Cleaning Erase Lamp

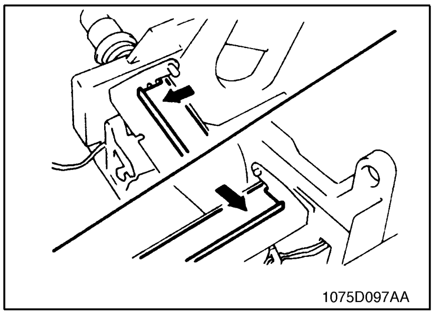


1. Remove the PC Drum Paper Separator Fingers Assy.
2. Remove two screws shown.
3. Unplug one connector and remove the Toner Antispill Seal and Pre-Cleaning Erase Lamp.

(12) Replacement of the Cleaning Blade



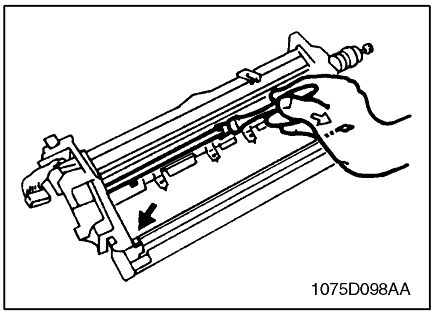
1. Remove the PC Drum and Main Erase Lamp.
2. Remove two screws and the Cleaning Blade and replace it.



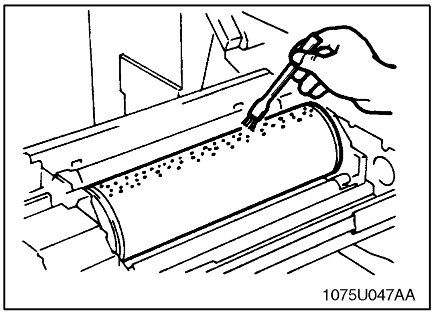
NOTE

When installing the Cleaning Blade, press it against the mounting bracket.

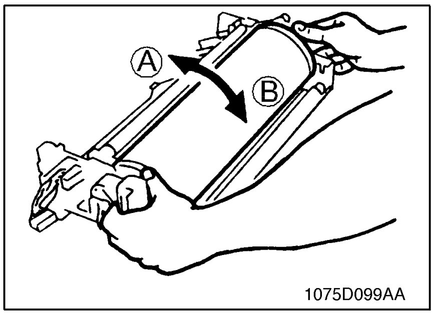
When the Cleaning Blade has been replaced, perform the following steps.



1. Before installing the PC Drum, apply lubricant (shipped with the new Cleaning Blade) to the cleaning felt pads at both ends of the PC Drum. Also apply toner to the entire surface of the Cleaning Blade.

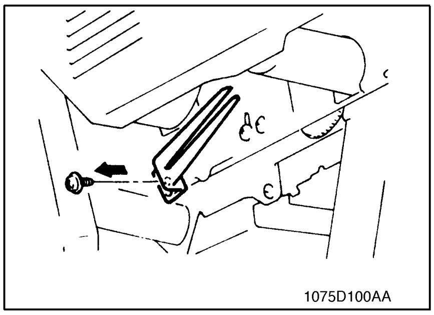


2. Install the PC Drum and apply a thin coat of toner to the surface of the PC Drum.



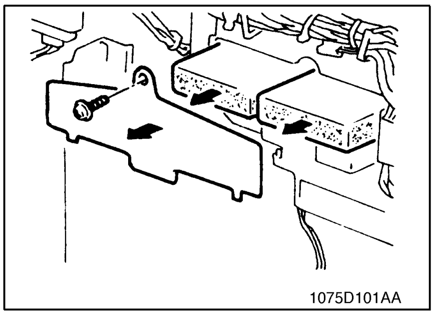
3. Holding onto both ends of the PC Drum, turn the PC Drum 1/2 turn in the direction of arrow A, then turn it one turn in the direction of arrow B.
4. Reinstall the PC Unit and run the FE operation (Blade Priming) of "Function" available from the Tech. Rep. mode.

(13) Replacement of the PC Ground Plate



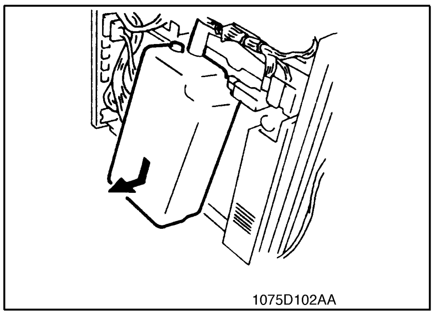
1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Remove one screw and the PC Ground Plate. Replace the PC Ground Plate.

(14) Replacement of the Ozone Filter



1. Remove the Rear Lower Cover.
2. Remove one screw and the Ozone Filter Cover.
3. Pull out the Ozone Filter and replace it.

(15) Replacement of the Toner Collecting Bottle



1. Remove the Rear Lower Cover.
2. Remove the Toner Collecting Bottle and replace it.

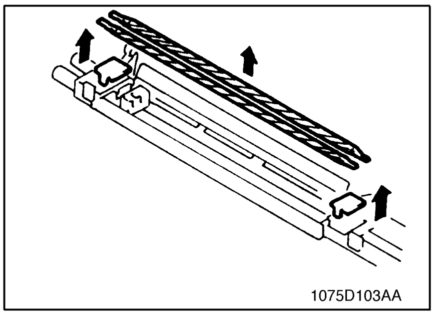
NOTE

When the Toner Collecting Bottle has been replaced, clear the "Toner Collect" count of "Consumable" available from "Counter" under the Tech. Rep. mode.

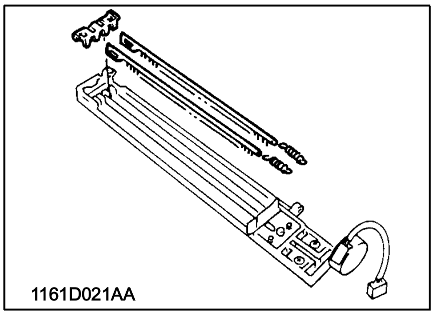
1161SBD0206A

2-6. PC DRUM CHARGE CORONA AND IMAGE TRANSFER/PAPER SEPARATOR CORONAS

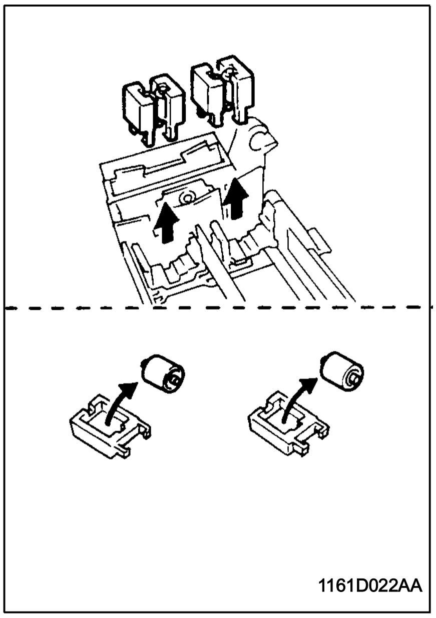
(1) Replacement of the PC Drum Charge Comb Electrode and Cleaners



1. Remove the PC Drum Charge Corona.
2. Remove the grid meshes.
3. Remove the holder covers at the front and rear.

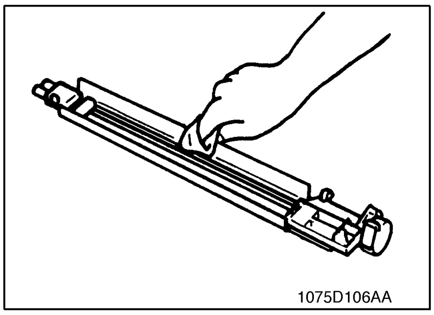


4. Remove the cleaner cover.
5. Extend the springs and remove the comb electrodes.



6. Remove the cleaner assy and remove the cleaning rolls.

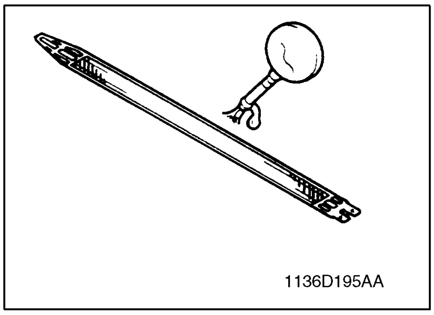
(2) Cleaning of the PC Drum Charge Corona Housing



Using a soft cloth dampened with alcohol, wipe clean the corona housing.

* Use care when cleaning the housing, as it is easy to deform.

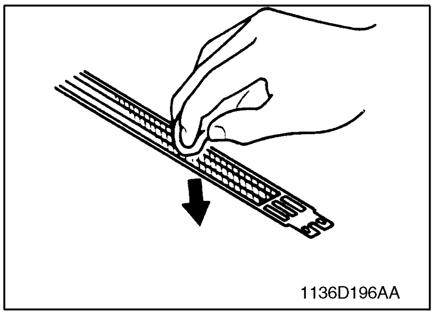
(3) Cleaning and Replacement of the Grid Mesh



Blow all foreign matter off the Grid Mesh with a blower brush.

NOTE

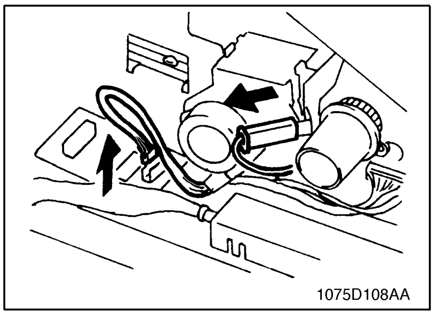
If the blower brush is not effective in cleaning the Grid Mesh, use a soft cloth dampened with alcohol to clean serious contamination.



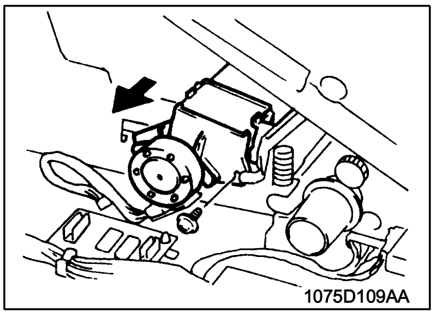
NOTE

Place the Grid Mesh on a flat surface and sweep the cloth along the mesh.
Do not touch the cleaned Grid Mesh with bare hands.

(4) Removal of the Image Transfer/Paper Separator Coronas

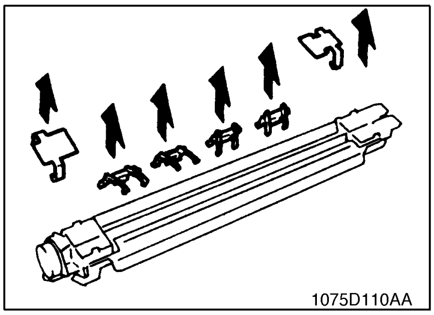


1. Open the Front Lower Door.
2. Remove the Image Transfer Cover.
3. Unplug the connector of the Pre-Image Transfer Guide Plate and that of the Image Transfer/Paper Separator Charge Wire Cleaning Motor.

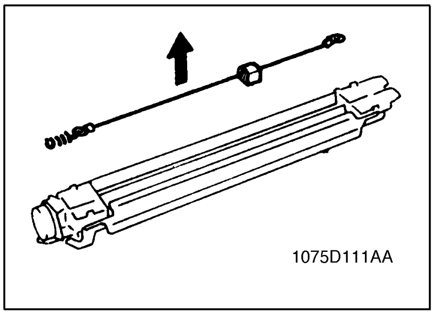


4. Remove one screw and the Image Transfer/Paper Separator Coronas.

(5) Replacement of the Image Transfer/Paper Separator Corona Wires and Wire Cleaners

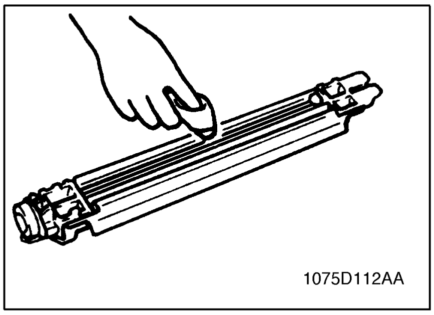


1. Remove the Image Transfer/Paper Separator Coronas.
2. Remove the holder covers at the front and rear and four paper guides.



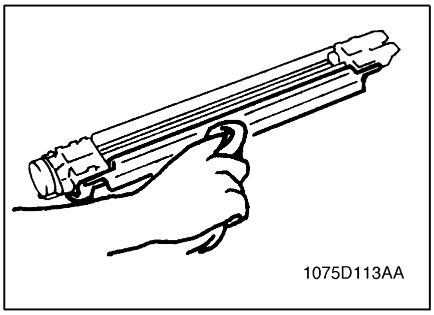
3. Extend the corona wire spring and remove the corona wire and wire cleaner.

(6) Cleaning of the Image Transfer/Paper Separator Coronas Housing



Using a soft cloth dampened with alcohol, wipe the housing clean of dirt.

(7) Cleaning of the Pre-Image Transfer Guide Plate

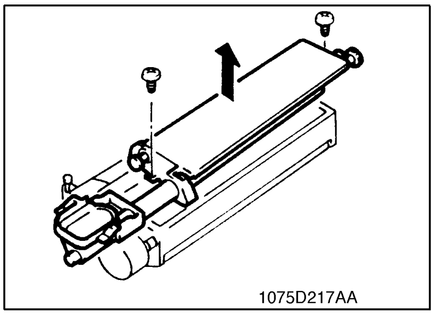


Using a soft cloth dampened with alcohol, wipe the guide plate clean of dirt.

1161SBD0207A

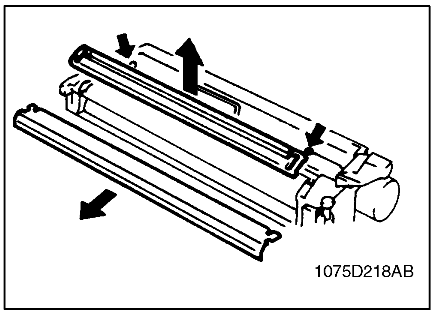
2-7. DEVELOPING UNIT

(1) Removal of the Sub Hopper

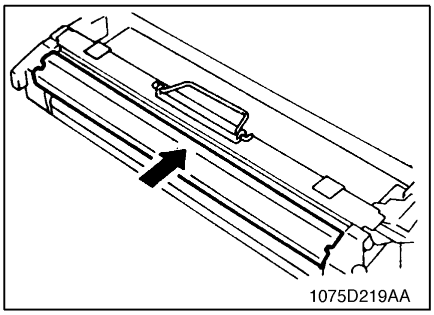


1. Remove the Developing Unit.
2. Remove two screws and the Sub Hopper.

(2) Disassembly of the Developing Unit and Replacement of Parts

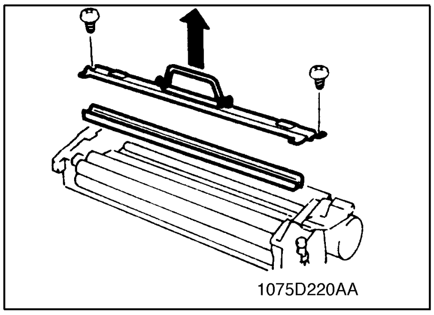


1. Remove the Sub Hopper.
2. Loosen two screws and the Developer Scattering Prevention Plate.
3. Remove the guide.



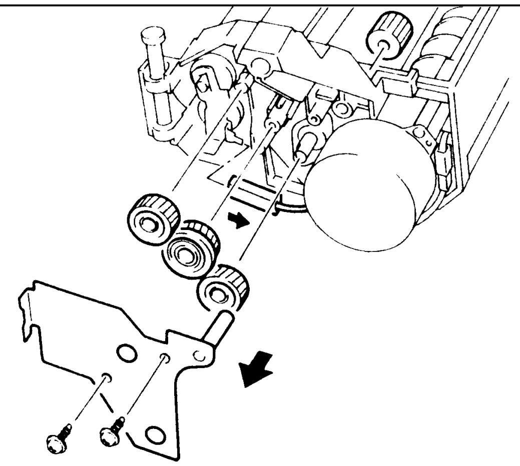
NOTE

When reinstalling the Developer Scattering Prevention Plate, press it against the Developing Unit.



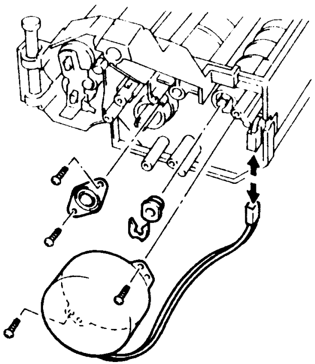
4. Remove two screws and the handle.
5. Remove the Doctor Blade.

6. Remove two screws and the gear holder at the front of the Developing Unit.
7. Unplug one connector and remove four gears.



1075D221AA

8. Unplug one connector, remove two screws and the Sub Hopper Toner Replenishing Motor.
9. Snap off the E-ring and remove the bushing for the Developer Conveying/Agitating Screw.
10. Remove two screws and the bushing for the Bucket Roller.

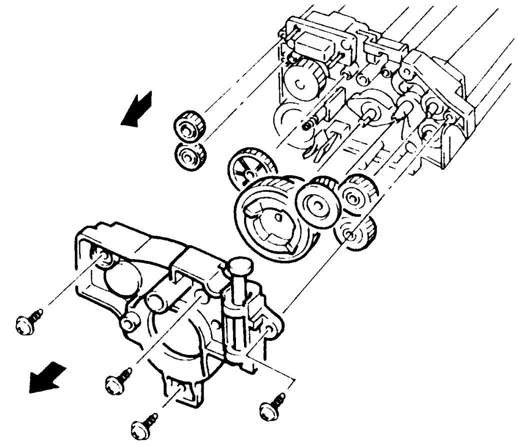


1075D222AA

NOTE

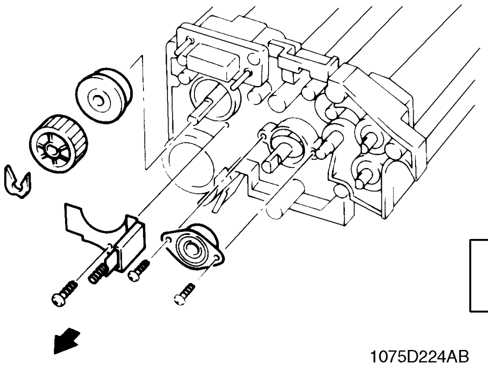
When reinstalling the bushing, twist it into position.

11. Remove four screws and the gear holder in the rear of the Developing Unit.
12. Remove seven gears (three shafts).



1075D223AA

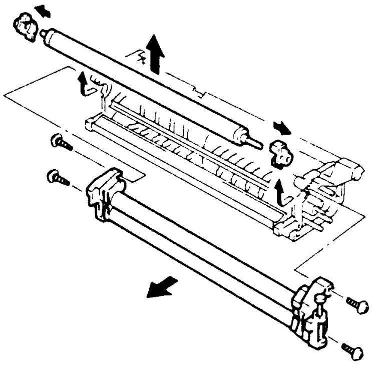
13. Remove the E-ring and gear. Remove one screw and the bias contact plate. Then, remove the bushing for the Developer Conveying/Agitating Screw.
14. Remove two screws and the bushing for the Bucket Roller.



NOTE

When reinstalling the bushing, twist it into position.

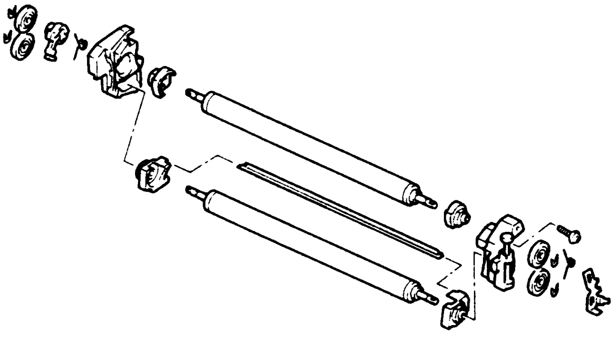
15. Remove two screws each at the front and rear and the 1st/2nd Sleeve/Magnet Rollers Assy.
16. Remove the Toner Replenishing Sleeve/Magnet Roller and the bushings on the front and rear.



NOTE

When reinstalling the bushing, twist it into position.

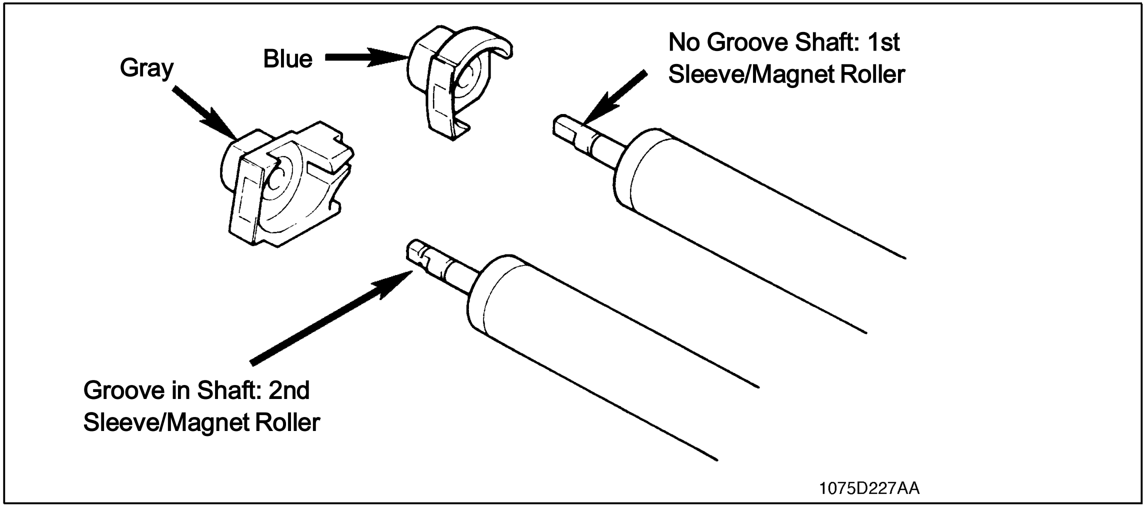
17. Disassemble the 1st/2nd Sleeve/Magnet Rollers Assy as illustrated below.

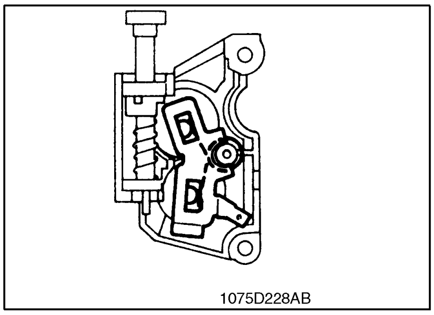


NOTE

When reinstalling the bushing, twist it into position.

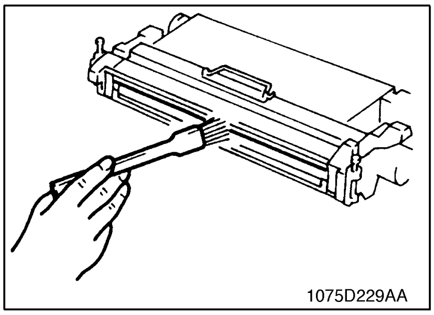
* Identifying the 1st Sleeve/Magnet Roller and its Bushing from the 2nd Sleeve/Magnet Roller and its Bushing


Gray
Blue
No Groove Shaft: 1st Sleeve/Magnet Roller
Groove in Shaft: 2nd Sleeve/Magnet Roller
1075D227AA


1075D228AB

* Install the spring and developing bias terminal as illustrated on the left.

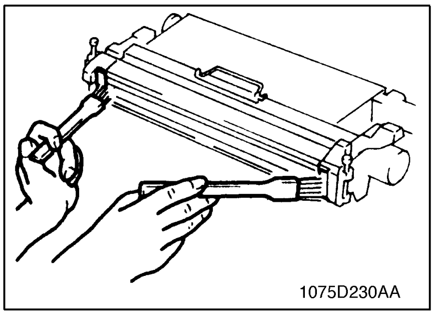
(3) Cleaning and Replacement of the Developer Scattering Prevention Seal


1075D229AA

Using a brush, whisk dust and dirt off the seal.

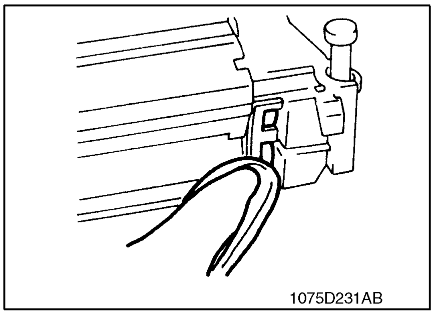
* To replace the seal, first remove the Developer Scattering Prevention Plate.

(4) Cleaning and Replacement of the Side Seals


1075D230AA

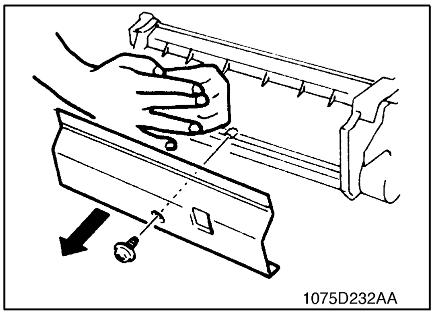
Using a brush, whisk dust and dirt off the side seals.

(5) Cleaning of the Ds Positioning Collars


1075D231AB

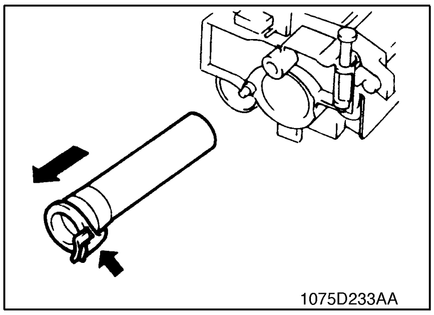
Using a soft cloth dampened with alcohol, wipe the Ds Positioning Collar clean of dirt.

(6) Cleaning of the Duct


1075D232AA

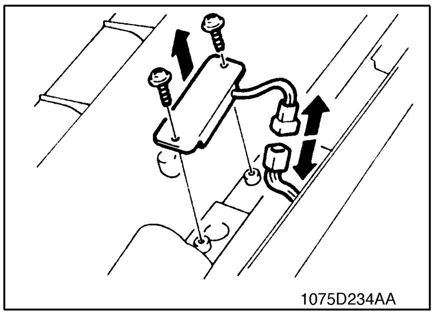
1. Remove one screw and the duct cover.
2. Using a brush, whisk dust and dirt off the duct and the exterior of the Developing Unit and, using a soft cloth dampened with alcohol, wipe clean the surfaces.

(7) Replacement of the Air Filter


1075D233AA

Press the lock of the Air Filter, slide out and replace the Air Filter.

(8) Removal of the ATDC Sensor

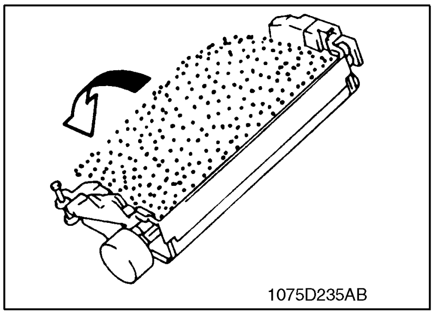

1075D234AA

1. Remove the duct cover and sealing material.
2. Unplug one connector, remove two screws and the ATDC Sensor.

NOTE

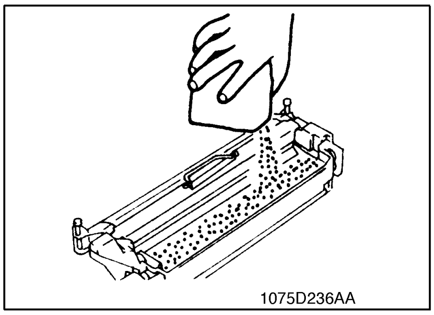
When the ATDC Sensor has been replaced, change the developer at the same time.

(9) Replacement of the Developer

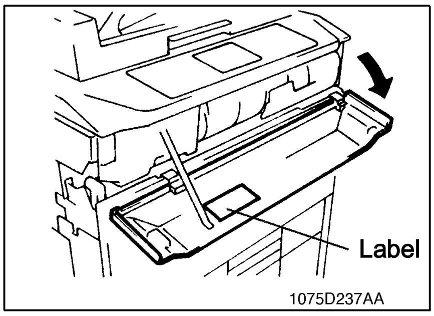


1. Remove the Sub Hopper Assy, Developer Scattering Prevention Plate, guide, handle, and the Doctor Blade.
2. Tilt the Developing Unit and, turning the drive gear, dump the developer out of the unit. Vacuum the developer remaining in the unit.

> ***NOTE***
>
> *Since vacuuming the developer generates static electricity, be sure first to remove the ATDC Sensor.*



3. Reinstall the Doctor Blade, handle, guide, and Developer Scattering Prevention Plate
4. Pour fresh Starter evenly into the chamber.

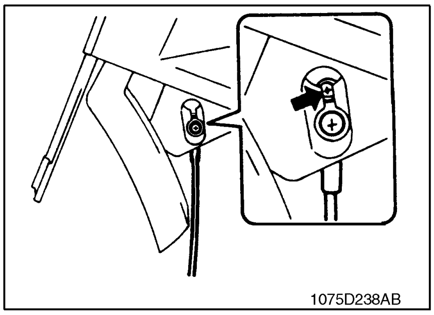


5. Reinstall the Sub Hopper Assy and install the Developing Unit in the copier. Then, make the ATDC adjustment and adjustment of exposure level in the Auto Exposure mode.

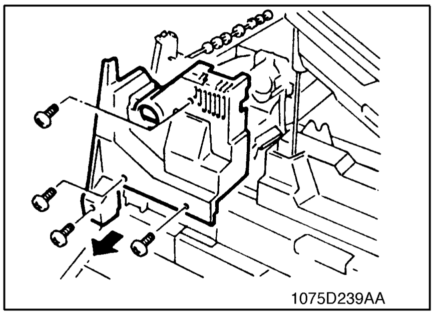
> ***NOTE***
>
> *After the ATDC adjustment, check the data for “ATDC Level” of “Level History” available from the Tech. Rep. mode and enter the data onto the label on the inside of the Front Upper Door.*

2-8. FUSING UNIT

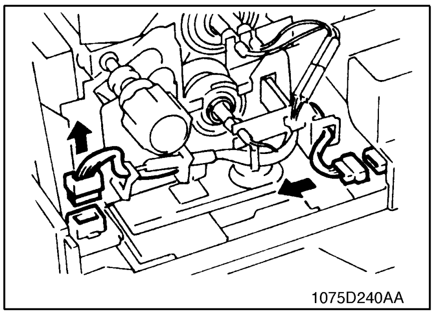
(1) Removal of the Fusing Unit


1075D238AB

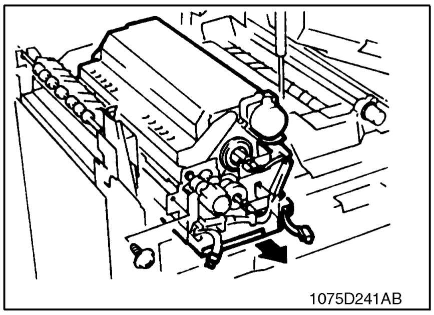
1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Loosen the screw shown and remove the Upper Paper Separator Finger Raising Wire.


1075D239AA

3. Remove four screws and the Fusing Cover.

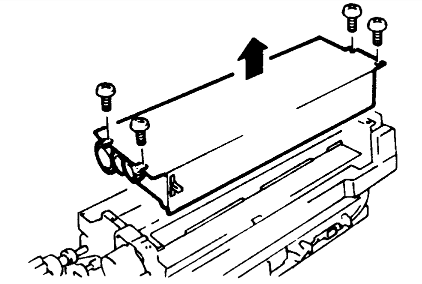

1075D240AA

4. Unplug two connectors.


1075D241AB

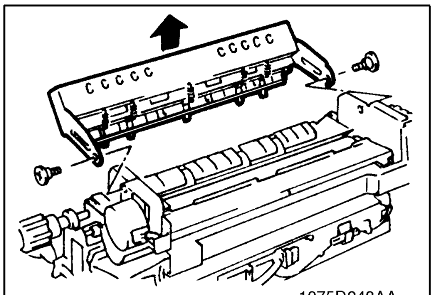
5. Remove one screw and the Fusing Unit.

(2) Disassembly of the Fusing Unit and Replacement of Parts


1075D242AA

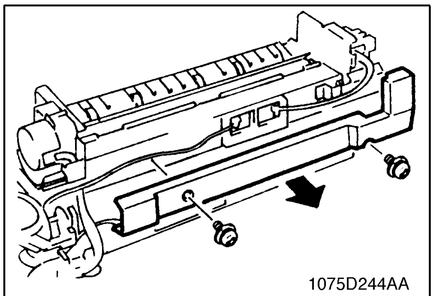
1. Remove the Fusing Unit.
2. Remove four screws and the Web Roller Assy.

* For the Web Roller Assy, see section (8).

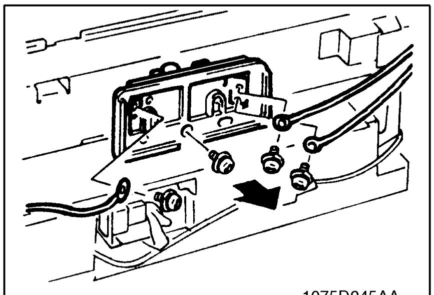

1075D243AA

3. Remove one screw each at the front and rear and the Upper Paper Separator Fingers Assy.

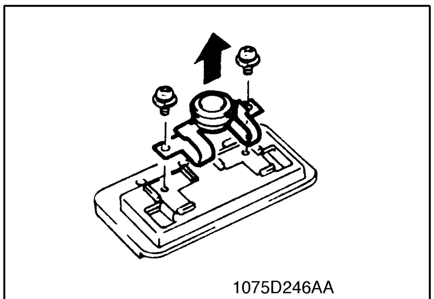
* For the Upper Paper Separator Fingers Assy, see section (3).


1075D244AA

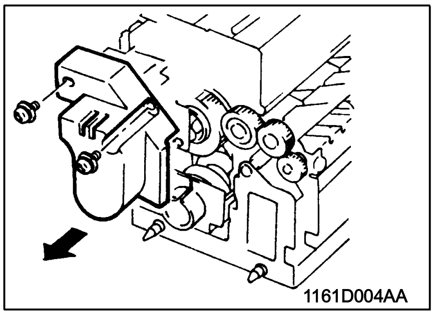
4. Remove two screws and the harness cover.


1075D245AA

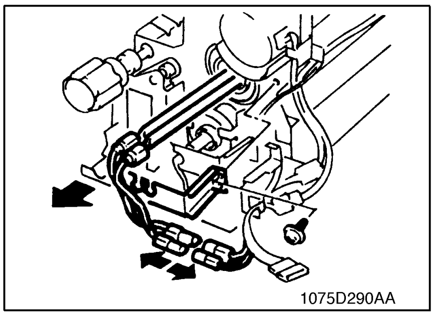
5. Remove one screw and the Fusing Roller Thermal Fuse holder.
6. Remove three screws and the heater harnesses.


1075D246AA

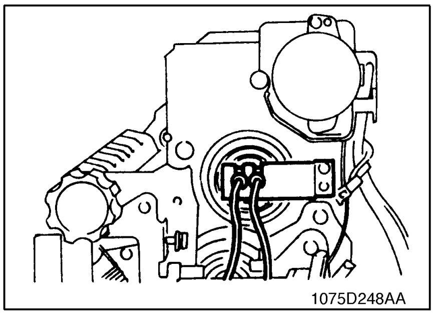
7. Remove two screws and the Fusing Roller Thermal Fuse.



8. Remove two screws and the Fusing Unit Rear Cover.

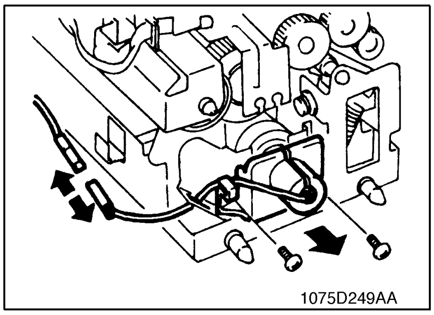


9. Unplug two connectors and remove one screw and the heater lamp holder.
10. Slide out two Upper Fusing Roller Heater Lamps.

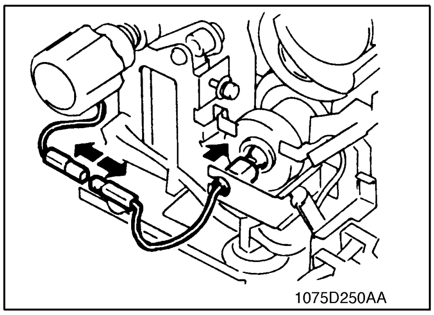


NOTE

When reinstalling the Upper Fusing Roller Heater Lamps, insert the Main Heater Lamp on the thermistor side and the Sub Heater Lamp on the paper separator finger side. Also, make sure that the end of the heater lamp on which its rating is shown faces the front.



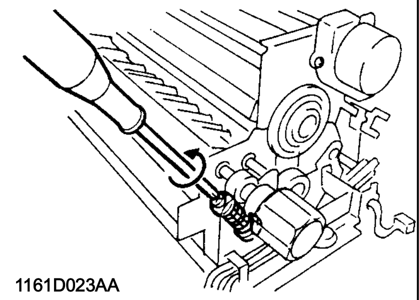
11. Remove two screws and the heater lamp holder (rear).
12. Unplug one connector.



13. Unplug one connector at the front. Go to the rear of the Fusing Unit and slide out the Lower Fusing Roller Heater Lamp.

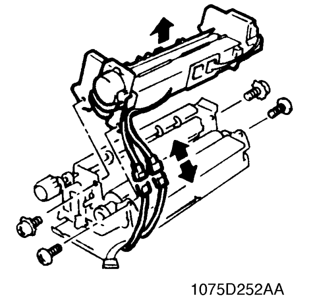
NOTE

When reinstalling the Lower Fusing Roller Heater Lamp, make sure that its end on which its rating is shown is at the rear.

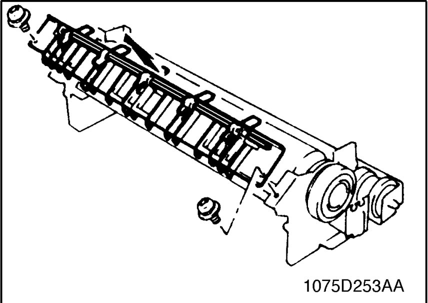


14. Loosen the roller pressure springs at the front and rear to free the Lower Fusing Roller.

* The illustration shows only the front end. Be sure also to loosen the spring in the rear.

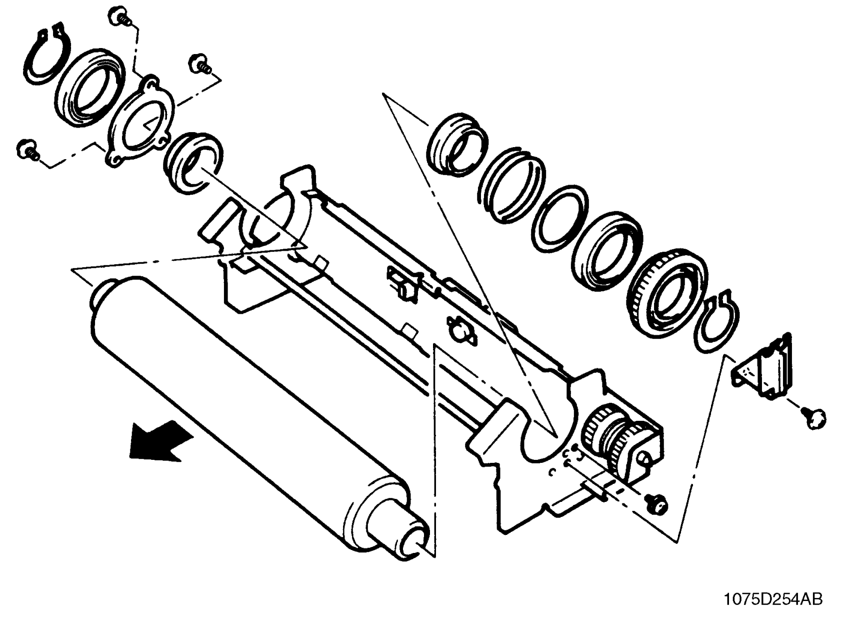


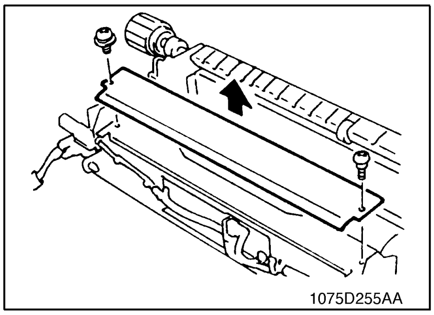
15. Unplug the connectors of the Cleaning Web Drive Motor and Upper Fusing Roller Thermistor.
16. Remove four screws and the Upper Fusing Unit.



17. Remove two screws and the Lower Paper Separator Fingers Assy.

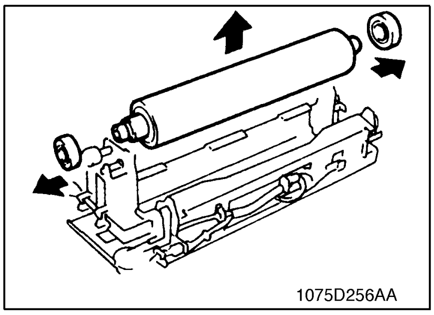
18. Disassemble the Upper Fusing Unit as illustrated.





1075D255AA

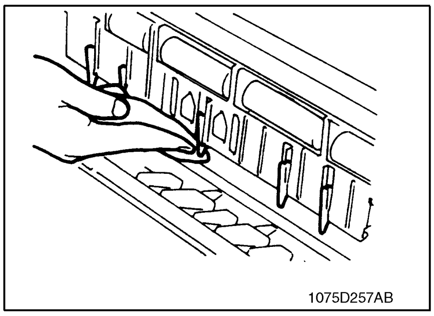
19. Remove two screws and the Pre-Fusing Guide Plate.



1075D256AA

20. Remove the Lower Fusing Roller and bearings.

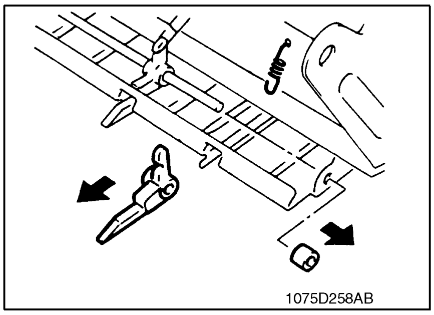
(3) Cleaning and Replacement of the Upper Paper Separator Fingers



1075D257AB

1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Using a soft cloth dampened with silicone oil, wipe clean the Upper Paper Separator Fingers.

* If the fingers are seriously contaminated, first use a soft cloth dampened with alcohol, then apply silicone oil to the fingers.

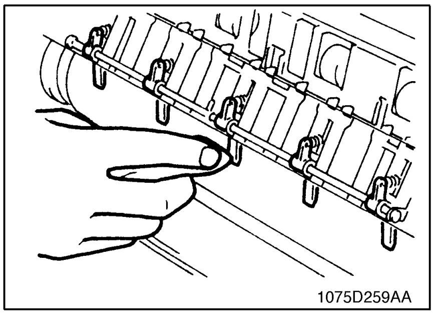


1075D258AB

Replacement

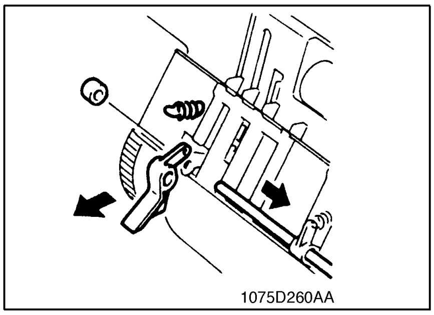
1. Remove the Upper Paper Separator Fingers Assy.
2. Unhook the finger springs, remove the rubber stopper, and slide out the fixing shaft to replace the Upper Paper Separator Fingers.

(4) Cleaning and Replacement of the Lower Paper Separator Fingers



1. Remove the Fusing Unit and loosen the roller pressure springs at the front and rear.
2. Remove two screws and swing up the Upper Fusing Unit.
3. Using a soft cloth dampened with silicone oil, wipe clean the Lower Paper Separator Fingers.

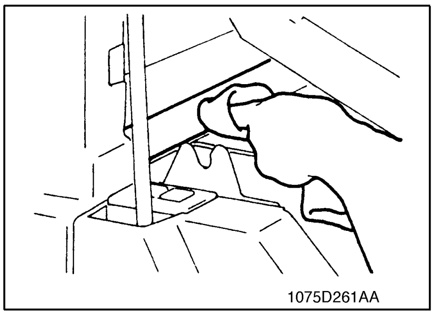
* If the fingers are seriously contaminated, first use a soft cloth dampened with alcohol, then apply silicone oil to the fingers.



Replacement

1. Remove the Fusing Unit and loosen the roller pressure springs at the front and rear.
2. Remove two screws and swing up the Upper Fusing Unit.
3. Unhook the finger springs, remove the rubber stopper, and slide out the fixing shaft to replace the Lower Paper Separator Fingers.

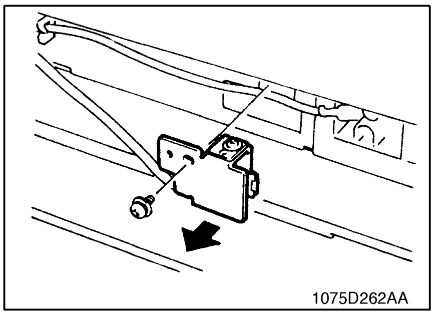
(5) Cleaning and Replacement of the Pre-Fusing Guide Plate



1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Using a soft cloth dampened with alcohol, wipe clean the Pre-Fusing Guide Plate.

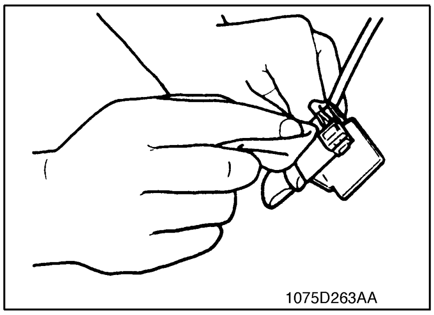
* For replacement of the Pre-Fusing Guide Plate, see section (2) “Disassembly of the Fusing Unit.”

(6) Cleaning and Replacement of the Upper Fusing Roller Thermistor



1. Remove the Fusing Unit and harness cover.
2. Unplug one connector and remove one screw and the Upper Fusing Roller Thermistor Assy.

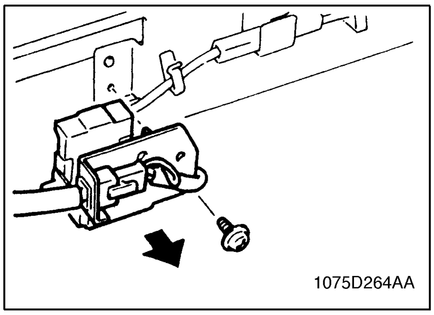
* To replace the thermistor, remove one screw and the thermistor from the Upper Fusing Roller Thermistor Assy.



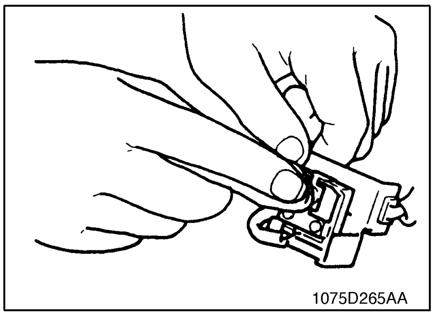
3. Using a soft cloth dampened with silicone oil, wipe clean the Upper Fusing Roller Thermistor.

* If the thermistor is seriously contaminated, first use a soft cloth dampened with alcohol, then apply silicone oil to the thermistor.

(7) Cleaning and Replacement of the Lower Fusing Roller Thermistor

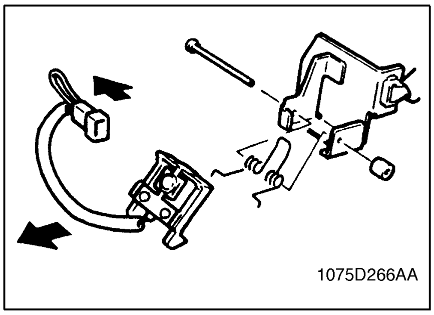


1. Remove the Fusing Unit.
2. Remove one screw to free the Lower Fusing Roller Thermistor Assy.



3. Using a soft cloth dampened with silicone oil, wipe clean the Lower Fusing Roller Thermistor.

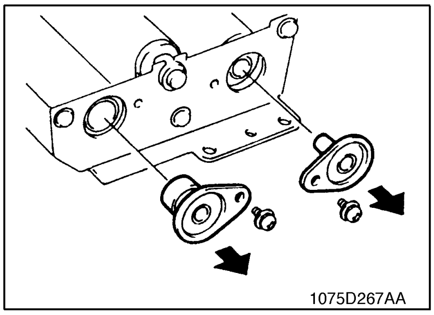
* If the thermistor is seriously contaminated, first use a soft cloth dampened with alcohol, then apply silicone oil to the thermistor.



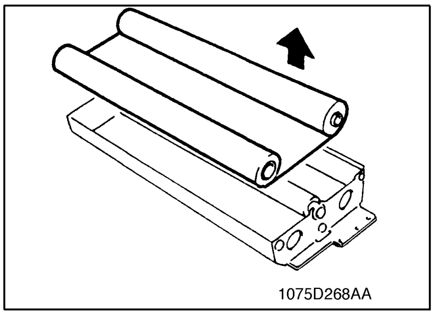
Replacement

1. Free the Lower Fusing Roller Thermistor.
2. Unplug one connector, remove the rubber stopper, and slide out the shaft to remove the Lower Fusing Roller Thermistor.

(8) Replacement of the Web Roller

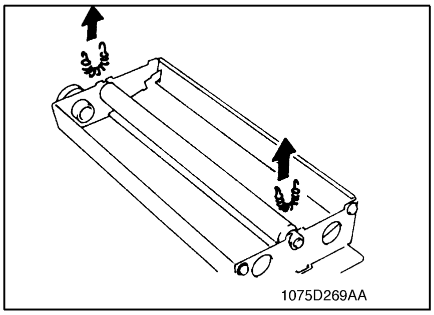

1075D267AA

1. Remove the Fusing Unit. Remove the Web Roller Assy from the Fusing Unit.
2. Remove one screw each from the Web Roller bushing, and Web Take-Up Roller bushing.

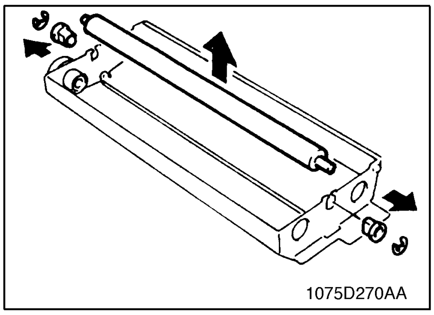

1075D268AA

3. Remove the Web Roller and Web Take-Up Roller.

(9) Replacement of the Oil Supply/Web Feeding Roller

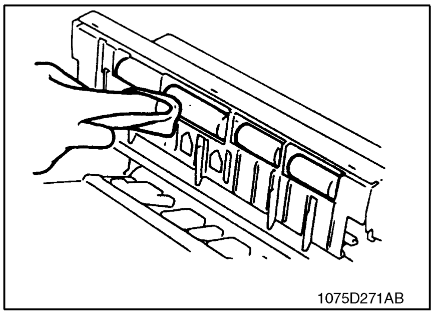

1075D269AA

1. Remove the Web Roller and Web Take-Up Roller.
2. Remove the pressure springs at the front and rear.


1075D270AA

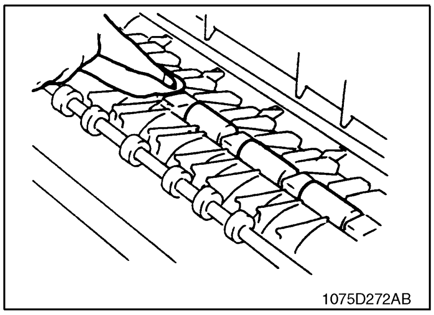
3. Remove the E-rings and bushings from the front and rear ends and remove the Oil Supply/Web Feeding Roller.

(10) Cleaning of the Upper Transport Roller



1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Using a soft cloth dampened with alcohol, wipe clean the Upper Transport Roller.

(11) Cleaning of the Lower Transport Roller

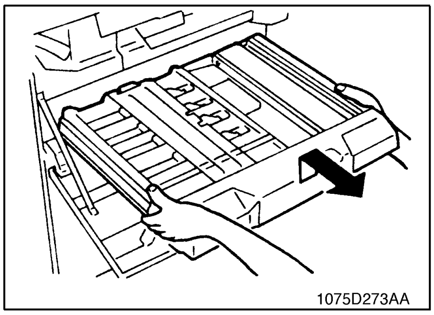


1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Using a soft cloth dampened with alcohol, wipe clean the Lower Transport Roller.

1161SBD0209A

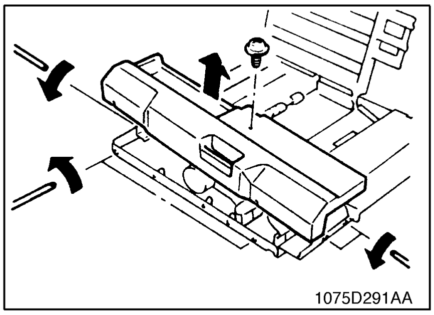
2-9. DUPLEX UNIT

(1) Removal of the Duplex Unit

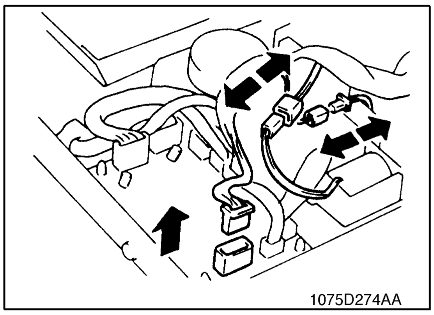

1075D273AA

Open the Front Lower Door. Slide out the Duplex Unit and, slightly lifting it up, remove it from the copier.

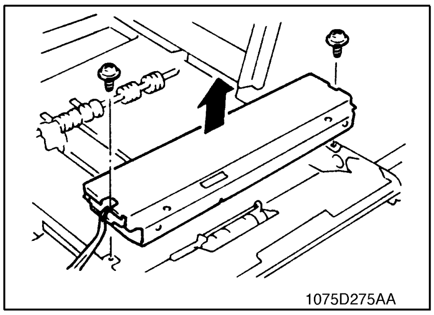
(2) Replacement of the Duplex Paper Take-Up and Feed Rolls


1075D291AA

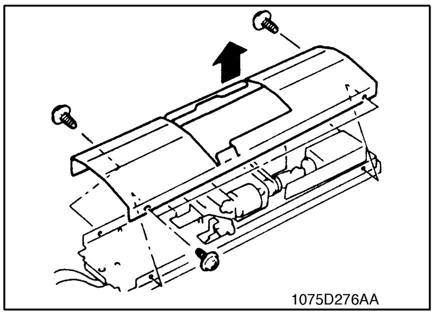
1. Remove one screw.
2. Loosen five screws and remove the Duplex Unit Cover.


1075D274AA

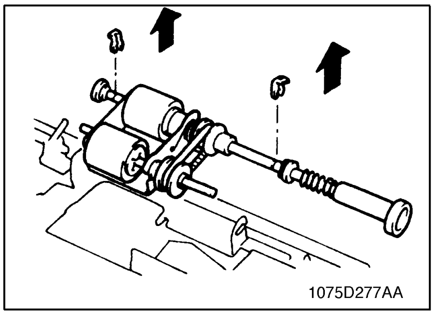
3. Unplug three connectors.


1075D275AA

4. Remove two screws and the Duplex Paper Take-Up Roll Assy.

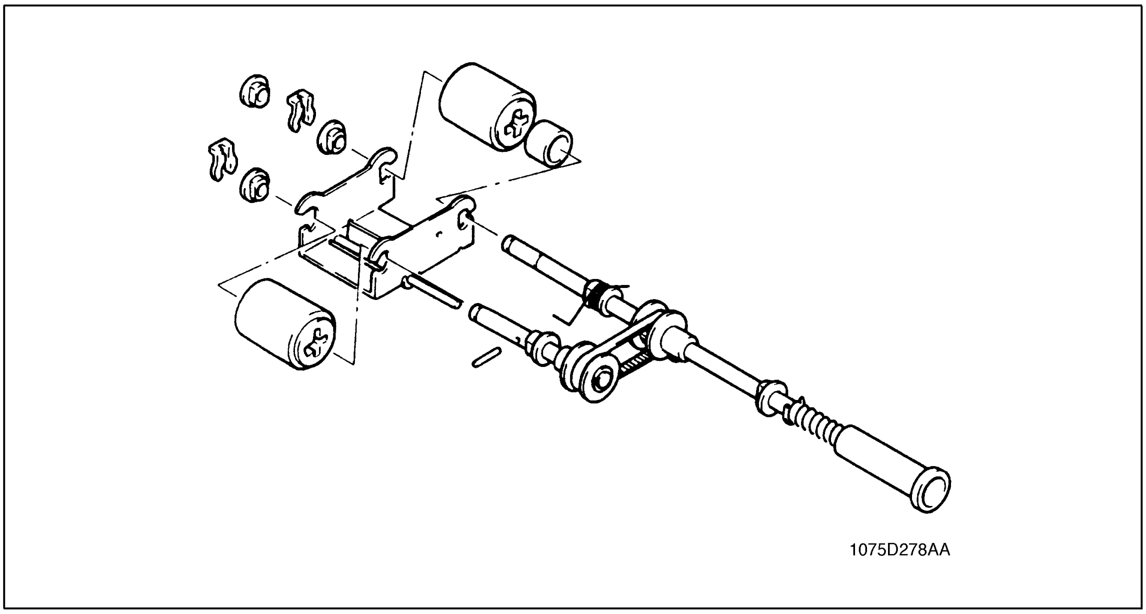

1075D276AA

5. Remove four screws and the Duplex Paper Take-Up Assy Cover.

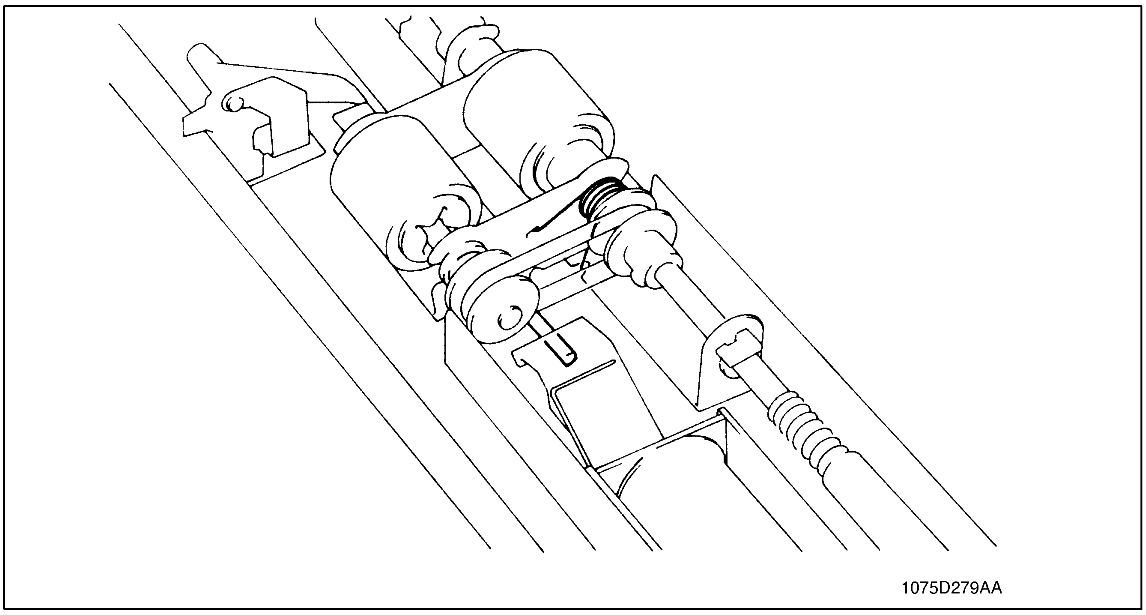

1075D277AA

6. Snap off two C-clips and remove the Duplex Paper Take-Up Roll Assy.

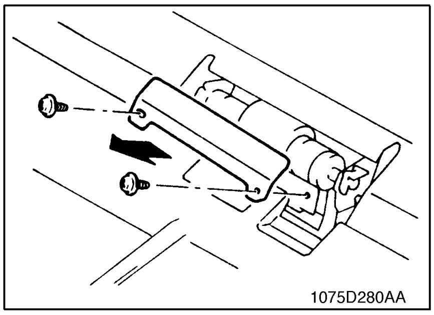
7. Disassemble the Duplex Paper Take-Up Roll Assy as illustrated below.


1075D278AA

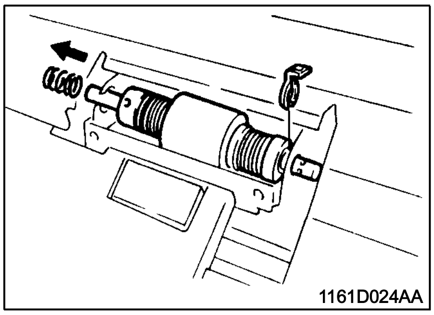
* When reassembling the Duplex Paper Take-Up Roll Assy, make sure that the torsion spring and the drive lever of the Duplex Unit Pick-Up Solenoid are installed at the correct positions.


1075D279AA

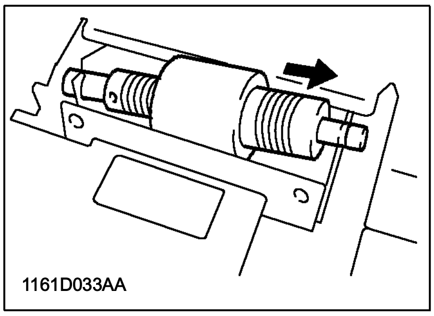
(3) Replacement of the Duplex Separator Roll Assy


1075D280AA

1. Remove the Duplex Paper Take-Up Roll Assy.
2. Remove two screws and the Pre-Duplex Separator Roll Guide Plate.


1161D024AA

3. Snap off the C-clip, slide the Separator Roll Assy, and unhook the spring.


1161D033AA

4. Slide to remove the Separator Roll Assy.

1161SBD0300A

3 ADJUSTMENT

1161SBD0301A

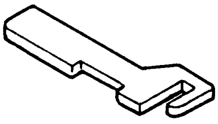
3-1. ADJUSTMENT JIGS AND TOOLS USED

NOTE

The number above the illustration of each jig is the Jig part number.

① Front Lower Door Interlock Switch Actuating Jig

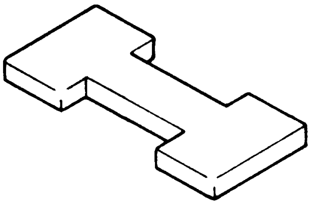
1075-7906-01



1075D114AA

② Predrive Inhibit Switch Actuating Jig

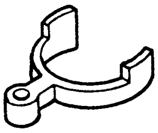
1067-7901-01



1075D115AA

③ Scanner Drive Cable Holding Jig

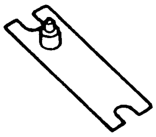
1075-7901-02



1075D116AA

④ 4th/5th Mirrors Positioning Jig

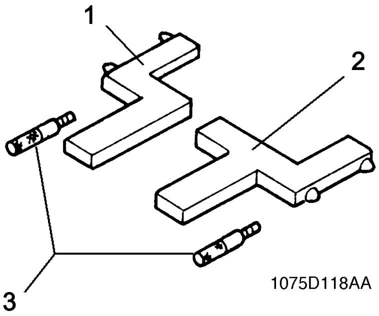
1036-0242-01



1075D117AA

⑤ Scanner/Mirrors Carriage Positioning Jig

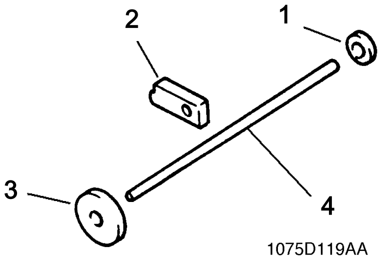
1. 1075-7904-01:	Scanner/Mirrors Carriage Positioning Jig (Front)
2. 1075-7905-01:	Scanner/Mirrors Carriage Positioning Jig (Rear)
3. 1022-7807-01:	Set Screws (2 screws)



1075D118AA

⑥ PC Drum Paper Separator Fingers Jig

1. 1075-7902-01:	PC Drum Bearing Jig (front)
2. 1075-7903-01:	PC Drum Paper Separator Fingers Jig
3. 1074-7903-02:	PC Drum Bearing Jig (rear)
4. 1031-7922-01:	Shaft



1075D119AA

1161SBD0302A

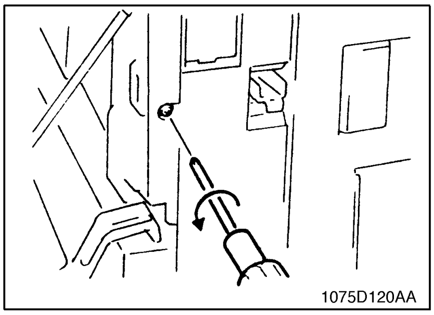
3-2. ADJUSTMENT REQUIREMENTS LIST

Adjustment Item	Requirements	Adjustment Point	Ref. page
Optimum exposure in the Manual Exposure mode	Kodak Gray Scale: no image of the 1st step, faint image of the 2nd step	Control panel	D-86
Crosswise direction zoom ratio, full size	(×1.000) 200 ± 1.0 mm	↑	D-92
Feeding direction zoom ratio, full size	(×1.000) 300 ± 1.5 mm	↑	D-94
Multi Bypass Table reference position	(×1.000) 20 ± 2.0 mm	Multi Bypass Table	D-96
1st/2nd Drawers reference position	(×1.000) 20 ± 2.0 mm	Drawer Positioning Plate	D-97
3rd Drawer reference position	(×1.000) 20 ± 2.0 mm	Drawer Adjustment Screw	D-98
Duplex Unit reference position	(×1.000) 20 ± 3.0 mm	Front/Rear Edge Guide Plate	D-99
Leading edge registration, full size	(×1.000) 20 ± 2.0 mm	Control panel	D-101
Leading edge registration, reduction	(×0.500) 10 ± 2.0 mm	↑	D-103
Leading edge registration, enlargement	(×2.000) 40 ± 4.0 mm	↑	D-105
Leading edge registration, book second page	(×1.000) 20 ± 3.5 mm	↑	D-107
Image leading edge erase width	(×1.000) 0.5 ~ 6.5 mm	↑	D-110
Image trailing edge erase width	(×1.000) 0.5 ~ 7.5 mm	↑	D-112
Image Erase Lamp position	(×1.000) 1 ± 0.5 mm	Image Erase Lamp Adjusting Screw	D-114
Focusing	(×1.000) Resolution 5.6 is readable	Lens Drive Cable	D-118

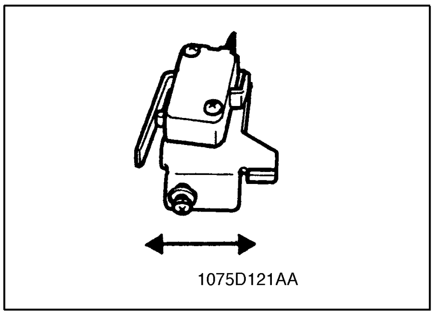
1161SBD0303A

3-3. ADJUSTMENT OF SWITCHES

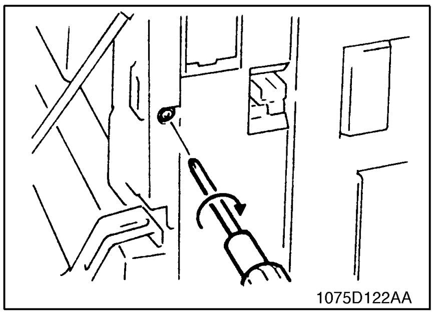
Adjustment of the Front Lower Door Interlock Switch (S2) Position



1. Open the Front Lower Door.
2. Accessing through the notch in the Right Front Cover, loosen the screw that secures the S2 Assy.



3. If S2 is OFF when the Front Lower Door is closed, move the S2 Assy towards the front.
   When the Front Lower Door cannot be closed because S2 is moved too much towards the front, shift it back.



4. After the S2 Assy is moved, tighten the mounting screw.
5. Check that S2 switches ON/OFF by closing and opening the Front Lower Door.

> ***Reference***
>
> *An NO type switch is used for S2.*

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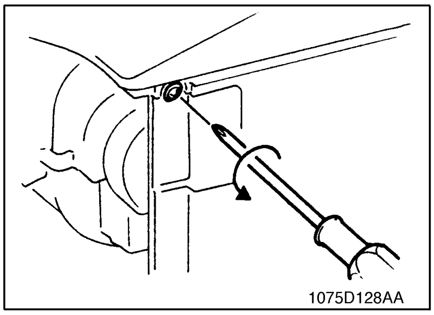
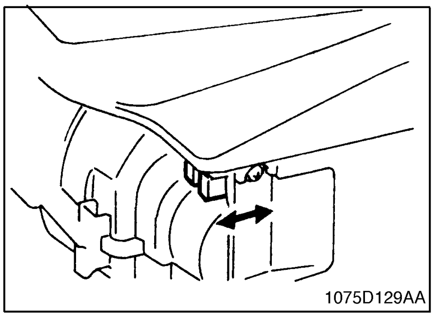
3-4. SENSOR ADJUSTMENT

Adjustment of Front Upper Door Set Sensor (PC31) Position



1. Open the Front Upper Door.
2. Accessing through the notch in the Right Front Cover, loosen the screw by which the PC31 Assy is mounted.



3. Since PC31 and the magnet catch are located on the same mounting bracket, move them so that the Front Upper Door is securely locked when it is closed.
4. After PC31 and the magnet catch are moved, tighten the mounting screw.
5. Check that PC31 is activated and deactivated and the door locks by closing and opening the Front Upper Door.

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3-5. ADJUSTMENT OF BELT TENSION

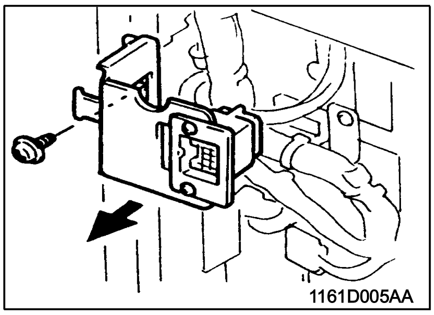
Checks after Adjustment

- *Turn the Timing Belt and check that all the Pulleys and grooves of the Belt fit securely.*
- *Each Belt should flex a little when the Belt is lightly pressed with a finger.*

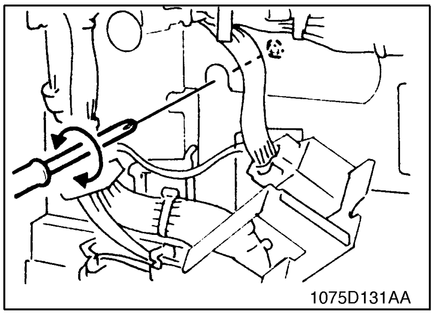
Reference

Since a given tension is applied by a torsion and tension spring to the Tension Lever that maintains the tension of each timing belt, adjustment is completed by re-tightening the mounting screw after it has been loosened.

(1) Adjustment of the Vertical Transport Section Timing Belt

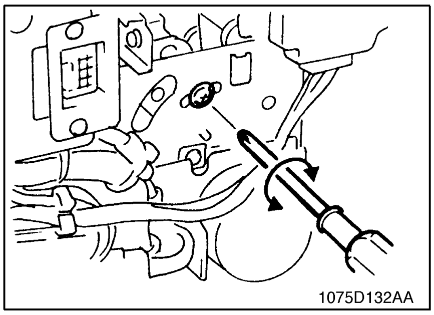


1. Remove four screws and the Rear Lower Cover.
2. Remove one screw and the Large Capacity Cassette Lattice Connector mounting bracket.



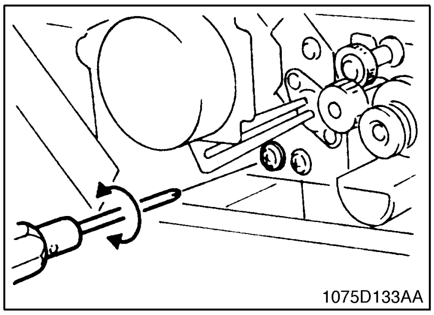
3. Through the notch, loosen screw by which the Tension Lever is mounted as shown on the left and then re-tighten it.

(2) Adjustment of the Paper Take-Up Unit Timing Belt



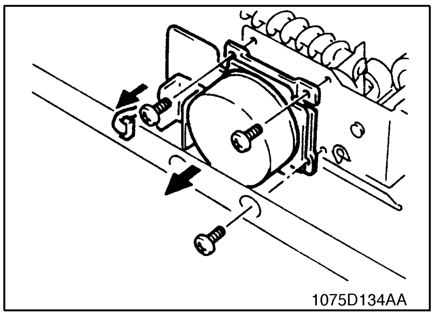
1. Remove four screws and the Rear Lower Cover.
2. Loosen the screw by which the Tension Lever is mounted as shown on the left and then re-tighten it.

(3) Adjustment of the Developing Unit Timing Belt

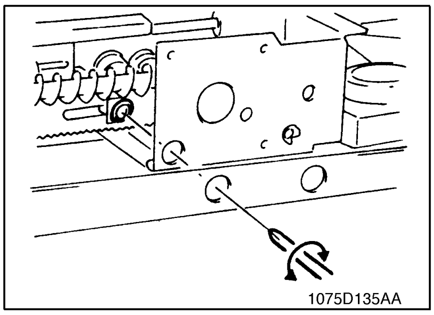


1. Remove three screws and the Rear Upper Cover.
2. Loosen the screw by which the Tension Lever is mounted as shown on the left and then re-tighten it.

(4) Adjustment of the Duplex Unit Timing Belt

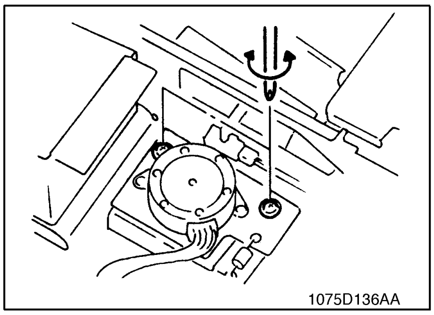


1. Open the Front Lower Door and pull out the Duplex Unit.
2. Remove the Duplex Unit Cover.
3. Remove three screws and the Duplex Unit Drive Motor (M7).



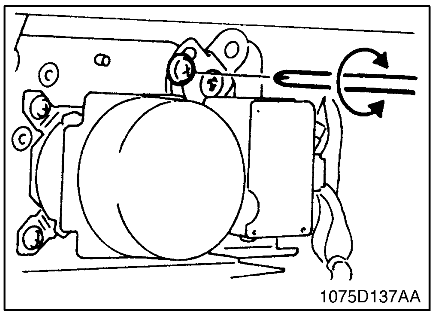
4. Loosen the screw by which the Tension Lever is mounted using a long Phillips screwdriver as shown on the left and then re-tighten it.

(5) Adjustment of the Duplex Unit Front/Rear Edge Guide Timing Belt



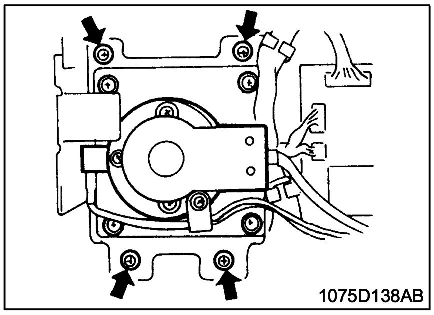
1. Open the Front Lower Door and pull out the Duplex Unit.
2. Remove one screw, loosen five screws and remove the Duplex Unit Cover.
3. Loosen the two screws retaining the Duplex Unit Front/Rear Edge Guide Drive Motor (M10) Assy and then re-tighten them.

(6) Adjustment of the Paper Exit Timing Belt



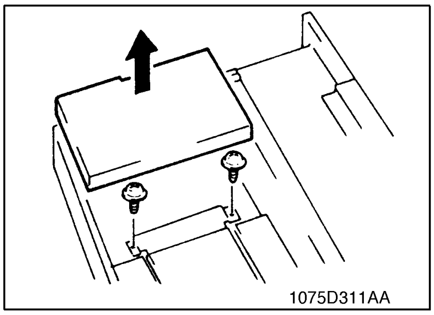
1. Remove four screws and the Rear Lower Cover.
2. Loosen the screw by which the Tension Lever is mounted as shown on the left and then re-tighten it.

(7) Adjustment of the Scanner Motor (M11) Timing Belt



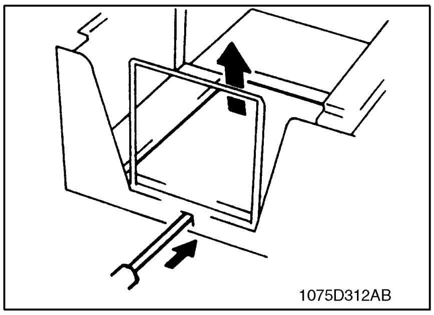
1. Remove three screws and the Rear Upper Cover.
2. Loosen four screws on the Scanner Motor (M11) mounting bracket and then re-tighten them.

(8) Adjustment of the 3rd Drawer Timing Belt

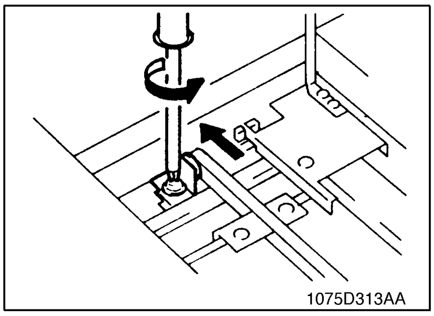


1. Pull out the 3rd Drawer and remove it.
2. Lift up the Main Tray and remove the two screws by which the Shift Tray is fixed.

> ***NOTE***
>
> *Be careful, the Main Tray wire easily comes off at reassembly.*

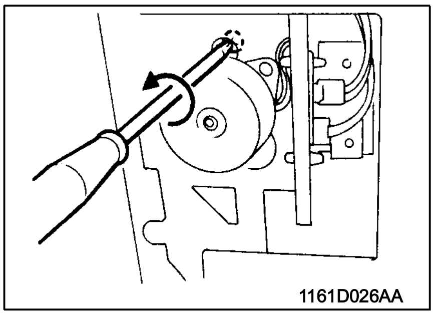


3. Release the lock by pressing the lock lever of the Shift Tray using a screwdriver, etc., as shown on the left.
4. Remove the Shift Tray.



5. Loosen the screw by which the Tension Pulley Assy is mounted and move the assy in the direction of the arrow.
6. After moving it, tighten the mounting screw.

(9) Adjustment of the Turnover Unit Timing Belt



1. Remove the Front Left Cover and Left Front Cover.
2. Loosen the screw that secures the Tension Pulley Assy and then tighten it again.

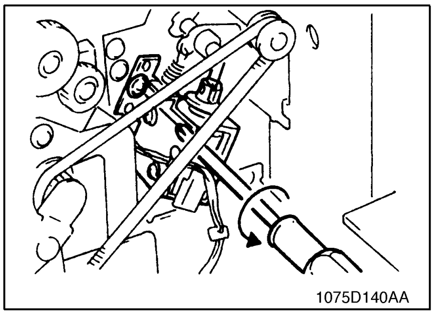
3-6. SOLENOID POSITION ADJUSTMENT

(1) Adjustment of the Exit/Duplex Switching Solenoid (SL1) Position

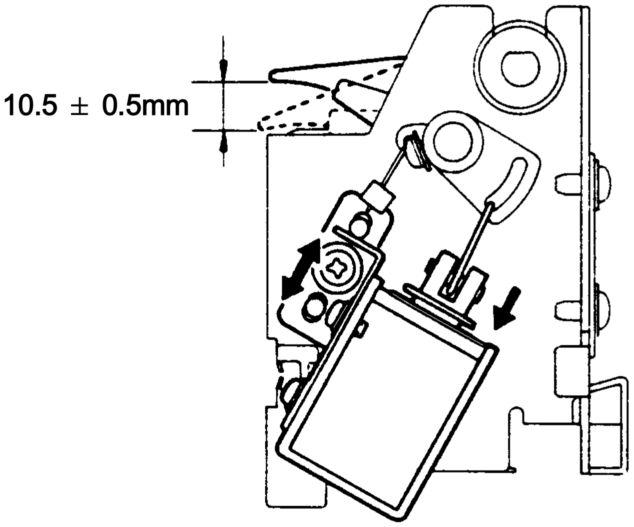
Requirement

The gap between the Guide Plate and the Exit/Duplex Switching Plate should be 10.5 ± 0.5 mm when SL1 is ON.

Adjustment Procedure



1. Open the Front Lower Door and release and swing up the Upper Half of the copier.
2. Remove four screws and the Rear Lower Cover.
3. Loosen the screw by which the SL1 Assy is mounted.
4. Adjust the position of the SL1 Assy so that the gap between the Guide Plate and the Exit/Duplex Switching Plate is 10.5 ± 0.5 mm when SL1 is set to ON.



5. After the adjustment is completed, tighten the SL1 Assy mounting screw.

Checks after Adjustment

- *After tightening the SL1 Assy mounting bracket, be sure to check that the projection fits in the slot.*
- *Check that the SL1 plunger and the Exit/Duplex Switching Plate can be moved smoothly.*
- *Check that the Exit/Duplex Switching Plate does not touch the Paper Exit Roller Shaft. (If adjustment is insufficient, they touch.)*

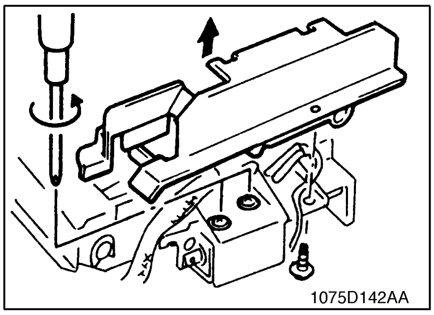
(2) Adjustment of the Duplex Unit Gate Switching Solenoid (SL2) Position

Requirement

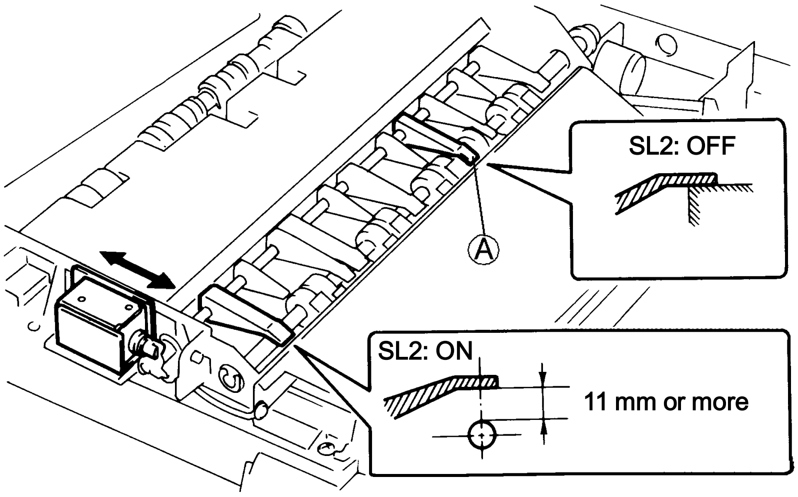
- *The gap between the Trailing Gate Switching Lever and Gate 2 Transport Roller should be 11 mm or more when SL2 is ON.*
- *The Trailing Gate Switching Lever should be brought into close contact with the frame when SL2 is OFF. (Refer to the following procedure for details.)*

Adjustment Procedure

1. Open the Front Lower Door.
2. Take out the Duplex Unit.
3. Remove the Duplex Unit Upper Guide Plate.
4. Remove the Duplex Unit Cover.
5. Remove the Trailing Gate Unit.



6. Remove one screw from the back of the Trailing Gate Unit and remove the Harness Cover.
7. Loosen the two screws by which SL2 Assy is mounted.
8. Move the SL2 unit so that the gap between the Gate Switching Lever and Gate 2 Transport Roller is 11 mm or more when SL2 is ON.
   Check that the Gate Switching Lever is brought into close contact with the frame at section Ⓐ when SL2 is OFF.



9. After the adjustment is completed, tighten the two mounting screws.

Check after Adjustment

Make a two-sided copy using A3/A4L or 11" × 17"/8-1/2" × 11" paper and check the paper feeding condition. (If adjustment is insufficient, a paper misfeed may occur in the Duplex Unit Gate Switching Lever section.)

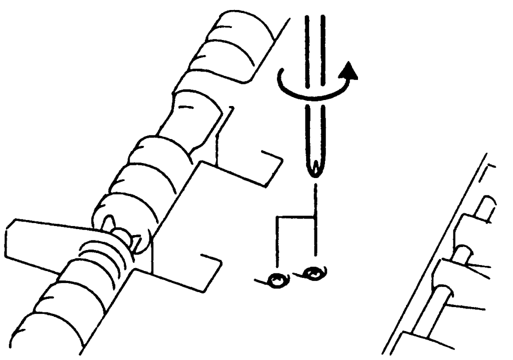
(3) Adjustment of the Duplex Unit Paper Finger Solenoid (SL3) Position

Requirement

When installing, shift SL3 to the left (viewed from the front) and then tighten the screws.

Adjustment Procedure

1. Open the Front Lower Door.
2. Remove the Duplex Unit.
3. Remove the Duplex Unit Upper Guide Plate.
4. Remove the Duplex Unit Cover.
5. Remove the Trailing Gate Unit.
6. Loosen the two screws by which SL3 is mounted and shift SL3 in the direction of arrow Ⓐ .



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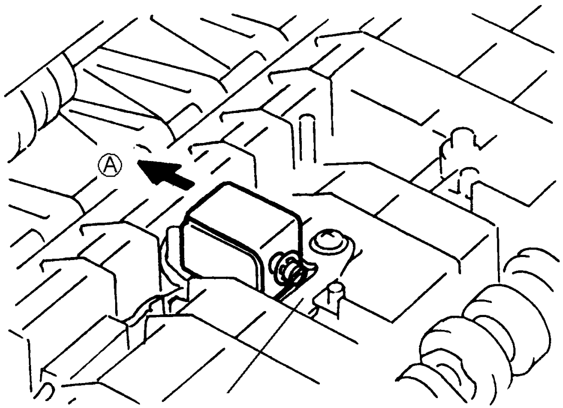

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7. After shifting it, tighten the two mounting screws.

Check after Adjustment

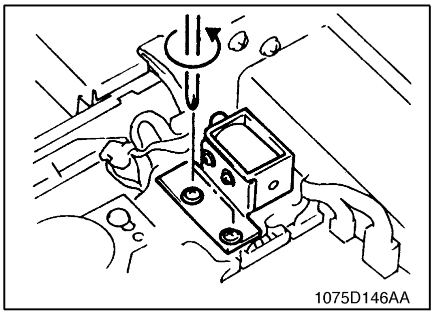
Check that the Duplex Unit Paper Finger of the Gate 1 Transport Roller can be turned smoothly when the Lock Lever is moved by setting SL3 to ON. (If adjustment is insufficient, the Duplex Unit Paper Finger touches the Lock Lever and it cannot be moved smoothly.)

(4) Adjustment of the Duplex Unit Leading Edge Solenoid (SL5) Position

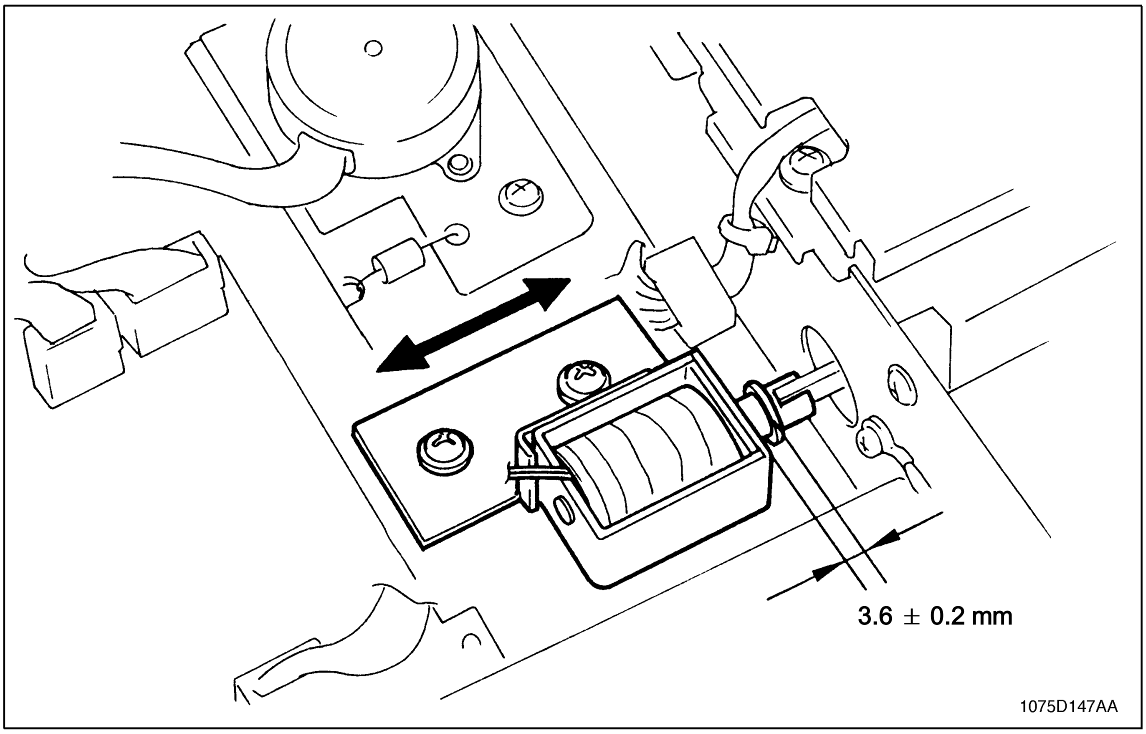
Requirement

The gap between the plunger E-ring and the SL5 body should be 3.6 ± 0.2 mm when SL5 is OFF.

Adjustment Procedure



1. Open the Front Lower Door.
2. Pull out the Duplex Unit.
3. Remove the Duplex Unit Cover.
4. Loosen two screws by which the SL5 Assy is mounted.
5. Move the SL5 Assy so that the gap between the E-ring of the plunger and the SL5 unit is 3.6 ± 0.2 mm when SL 5 is OFF.



6. After the adjustment is completed, tighten the two mounting screws.

Check after Adjustment

Check that the Leading Edge Guide Plate is positioned under the top surface of the Guide Plate when SL5 is ON. This can be checked by removing the Duplex Take-Up Roll Assy. (If adjustment is insufficient, a paper misfeed may occur in the Duplex Unit.)

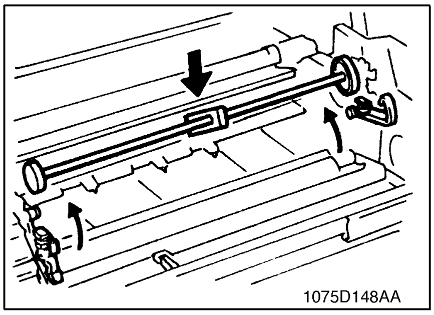
(5) Positioning of the PC Drum Paper Separator Fingers [Separator Finger Solenoid (SL6)]

Requirement

The gap between the three PC Drum Paper Separator Fingers and the PC Drum should be 1 ± 0.5 mm when SL6 is OFF.

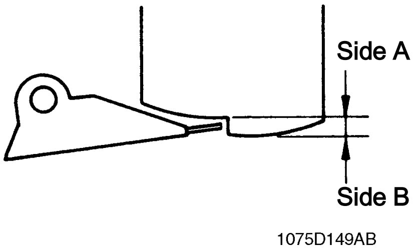
Adjustment Procedure

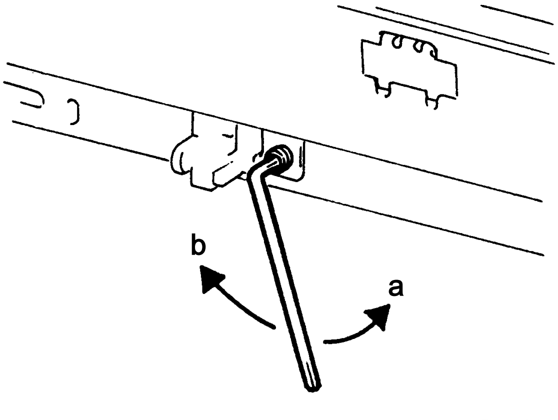
1. Open the Front Lower Door and loosen one screw to pull out the PC Unit.
2. Remove the Developing Unit and take out the PC Drum.



3. Set the PC Drum Separator Fingers Jig against the Cleaning Unit and fix it with the Front and Rear PC Drum Lock Levers.
4. Move the PC Drum Separator Fingers Jig over the PC Drum Separator Fingers.
5. Adjust so that the tips of each separator finger matches the center between side A and side B of the PC Drum Separator Fingers Jig when SL6 is OFF.
   When the mounting angles of the three separator fingers are slightly uneven, it is acceptable if the three separator fingers are positioned between side A and side B. To adjust, turn the adjustment screw with a 3 mm Allen wrench.

- Turning in direction “a” lowers the tip of the separator finger.
- Turning in direction “b” lifts the tip of the separator finger.





Checks after Adjustment

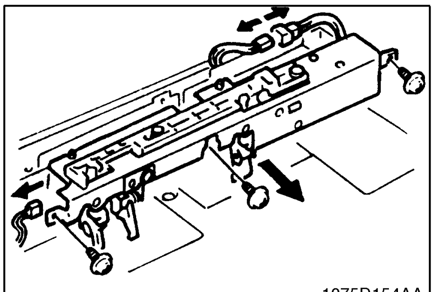
- *Check that the three PC Drum Separator Fingers can be moved smoothly by turning SL6 ON and OFF.*
- *Check that the separator fingers touch the PC Drum when SL6 is ON. (If adjustment is insufficient, a PC Drum Separator Misfeed may occur.)*

(6) Adjustment of Manual Feed Paper Pick-Up Solenoid (SL8) Position

Requirement

The Paper Stoppers should be fixed perpendicularly when SL8 is ON.

Adjustment Procedure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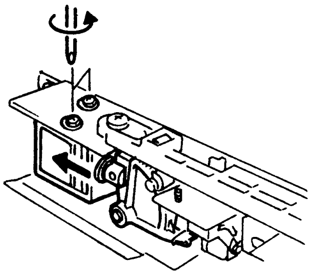
1. Remove the Right Rear Cover and the Right Door.
2. Remove two screws and the Multi-Bypass Unit Cover.
3. Remove the Multi-Bypass Unit.
4. Remove three screws and the SL8 Assy.
5. Remove one connector and one print jack.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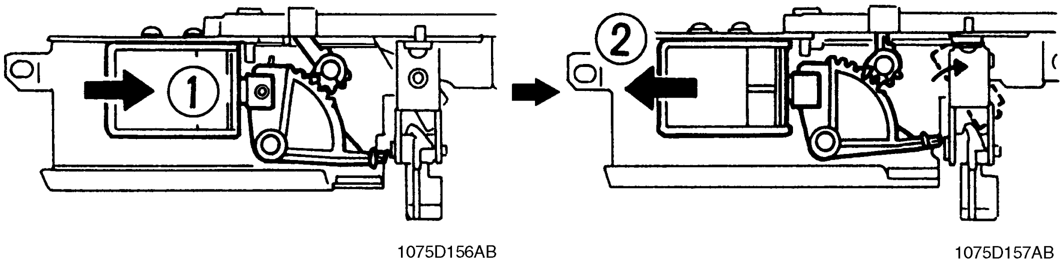
6. Set SL8 to ON.

> ***Reference***
>
> *Since a keeper solenoid is used as SL8, the set condition is kept when SL8 is ON.*

7. Loosen the two screws by which SL8 is mounted.
8. Move SL8 in the direction of arrow ①, then slowly move it in the direction of arrow ②.
9. Move SL8 up to the position where the Lock Lever of the Paper Stopper becomes perpendicular (the position where the Paper Stopper is locked).
   Be careful since if SL8 is moved too much, the set condition is released. If the set condition is released, set SL8 to ON again and repeat from step 7.
10. Tighten the two SL8 mounting screws.



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Check after Adjustment

Check that the Paper Stopper is securely locked perpendicularly when SL8 is ON. (If adjustment is insufficient, the Paper Stopper may not be locked or the set condition may not be kept even when SL8 is ON.)

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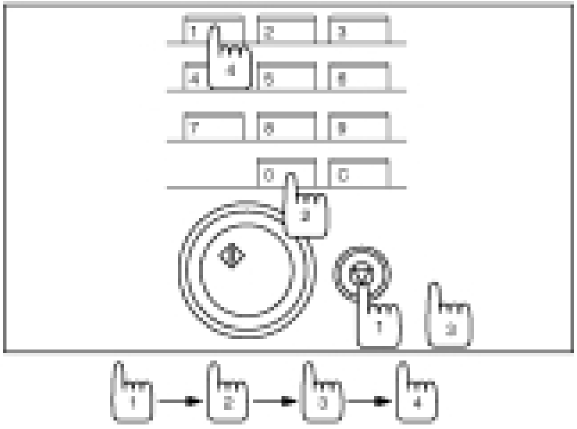
3-7. ACCESSING THE TECH. REP. MODE AND ADJUST MODE

(1) Accessing the Tech. Rep. Mode

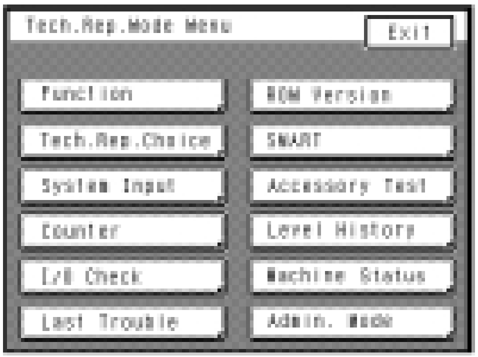
To access the Tech. Rep. Mode, press the following keys in that order.

Stop Key → “0” of 10-Key Pad → Stop Key → “1” of 10-Key Pad



1
2
3
4
5
6
7
8
9
0
C
1
2
3
4

1134D069AA



Tech.Rep.Mode Menu
Exit
Function
ROM Version
Tech.Rep.Choice
SMART
System Input
Accessory Test
Counter
Level History
I/O Check
Machine Status
Last Trouble
Admin. Mode

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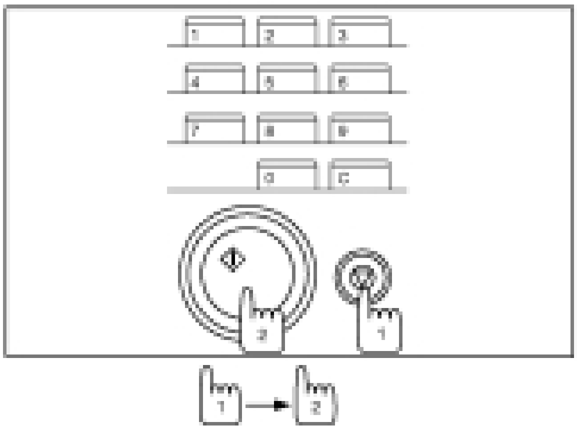
Press the keys in order of [1], [2], [3] and [4].

(2) Accessing the Adjust Mode

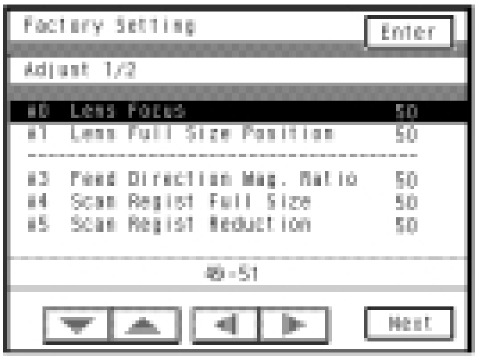
To access the Adjust mode, press the following keys in that order with the Tech. Rep. mode menu on the screen.

Stop Key → Start Key → Adjust Key



1
2
3
4
5
6
7
8
9
0
C
1
2

1134D071AA



Factory Setting
Enter
Adjust 1/3
49-51
Next

```
#0  Lens Focus                      50
#1  Lens Full Size Position         50
---------------------------------------
#3  Feed Direction Mag. Ratio       50
#4  Scan Regist Full Size           50
#5  Scan Regist Reduction           50
```

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Press the keys in order of [1] and [2].

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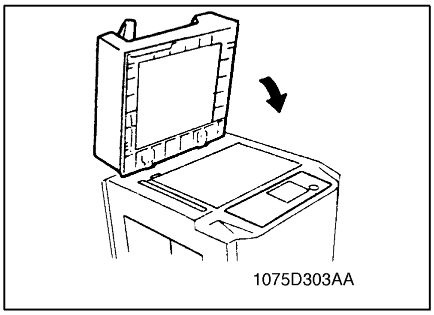
3-8. ELECTRICAL/IMAGE ADJUSTMENTS

(1) Initial Adjustment of Original Size Detection (F7 Mode)

When is this adjustment required?

- *Be sure to perform the Original Size Detection Adjustment (F7 mode) after the following items have been done.*
  - *Memory clear*
  - *RAM Board (PWB-R) replacement*
  - *Original Size Detecting Board (UN3) replacement*
  - *Original Size Detecting Sensor replacement/addition*

Adjustment Procedure



1. Lower the ADF with no original placed on the Original Glass.
2. Call the Tech. Rep. mode menu to the screen.
3. Touch [Function] to show the Function menu on the screen.
4. Touch [F7 Orig. Sensor].
5. Press the Start Key to let the copier make the initial adjustment of the Original Size Detecting Board.

NOTE

While the copier is in the adjustment cycle, the Start Key is lit up orange. The key turns green as soon as the adjustment cycle is completed.

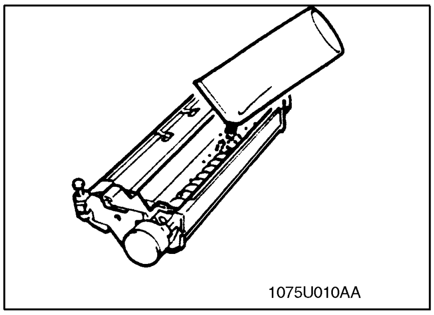
6. After the adjustment has been made, press the Panel Reset Key to return the copier to the normal operating state.

(2) ATDC Adjustment (F8 Mode)

When is this adjustment required?

- *Be sure to perform the ATDC Adjustment (F8 mode) after the following item has been done.*
  - *Starter replacement*
- *When the ATDC Sensor is to be replaced, it is also necessary to replace the starter, so perform this adjustment.*

Adjustment Procedure


1075U010AA

1. Load the Developing Unit with two packs of fresh starter.
2. Set the Developing Unit into the PC Unit.
3. Reinstall the PC Unit into the copier.
4. Turn the Power Switch ON.
5. Call the Tech. Rep. mode menu to the screen.
6. Touch [Function] to show the Function menu on the screen.
7. Touch [Developer] → [F8 ATDC Adjust].
8. Press the Start Key to let the copier make the ATDC adjustment. (It will run for about 3 minutes.)

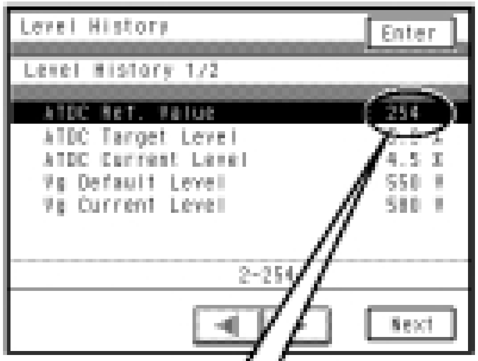
NOTES

- *While the copier is in the adjustment cycle, the Start Key is lit up orange. The key turns green as soon as the adjustment cycle is completed.*
- *Pressing of the Start Key will automatically start the ATDC adjustment cycle. Be sure to run this cycle only after the starter has been replaced.*

TIPS

- *If the starter and Cleaning Blade have been replaced at the same time, release the Cleaning Blade Pressure Lever to retract the Cleaning Blade before running the F8 operation.*
- *After the F8 operation has been run, actuate the Cleaning Blade Pressure Lever to press the Cleaning Blade up against the surface of the PC Drum before running the next FE operation.*
- *Only when the starter and Cleaning Blade have been replaced at the same time, run the test operations in the order of F8, FE, and F5.*

9. Touch [Menu] on the screen to show the Tech. Rep. mode menu again.
10. Touch [Level History] and enter the value for the ”ATDC Set Level” on the Adjust Label affixed inside the Front Upper Door.



ATDC Ref. Value 254
ATDC Target Level 5.0 %
ATDC Current Level 4.5 %
Vg Default Level 550 V
Vg Current Level 500 V
2-254

1156D168CA

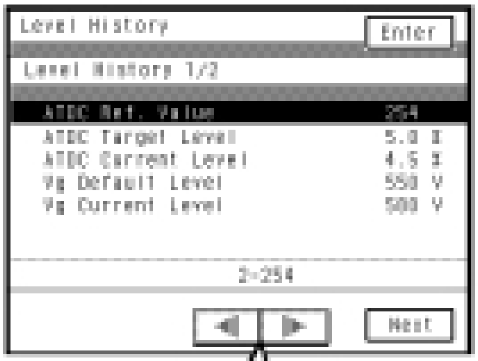
Enter This Value on the Adjust Label.

11. After entering the value, return to the Function menu screen in the Tech. Rep. mode and touch [F5 Optimum & AE] to perform Auto Exposure adjustment.

Caution

Be sure to perform Auto Exposure adjustment after the ATDC (F8) has been adjusted.

◆ Should the F8 operation be run when the starter has not been replaced, check that the “ATDC Set Level” value on the “Level History” screen matches that written on the Adjust Label. If they do not agree with each other, change the “ATDC Set Level” value on the screen so that it matches the value on the Adjust Label.



ATDC Ref. Value 254
ATDC Target Level 5.0 %
ATDC Current Level 4.5 %
Vg Default Level 550 V
Vg Current Level 500 V
2-254

1156D169CA

Touch the shift key ◀ or ▶ to change the value and touch Enter to validate the new setting.

(3) Adjustment of the Aperture Plates

Requirement

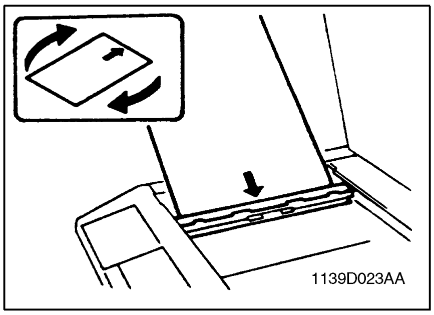
There should be no dark or light bands running in the feeding direction on the copies produced.

Items to be checked before adjustment

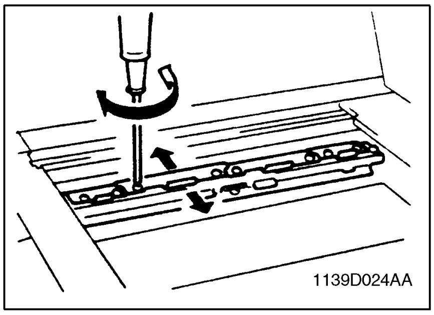
- *If dark or light bands running in the feeding direction occur on the copies, check the following items before starting adjustment.*
  1. *The PC Drum Corona wires, grid mesh, and the Image Transfer Corona wire are all free of dirt.*
  2. *The surface of the Mirrors and Lens are free of dirt.*
  3. *The surface of the Exposure Lamp and Main Erase Lamp are free of dirt.*
  4. *The Cleaning Blade has not deteriorated or hardened and is not wavy.*

Adjustment Procedure

1. Make a copy with the following settings.
   Original: A3 or A4 crosswise, 11" × 17" or 8-1/2" × 11" crosswise
   Paper : A3 or A4 crosswise, 11" × 17" or 8-1/2" × 11" crosswise
   Zoom ratio: ×1.000
   Exposure: Manual (setting convenient for checking)



2. Remove the Original Glass.
3. Turn the copy on the Exit Tray around as shown to reverse the leading and trailing edges and align it with the Aperture Plate.



4. Adjust to obtain the center image density for all areas of the copy.

NOTES

- *To make the image darker, move the Aperture Plates toward the Auxiliary Reflector.*
- *To make the image lighter, move the Aperture Plates away from the Auxiliary Reflector.*

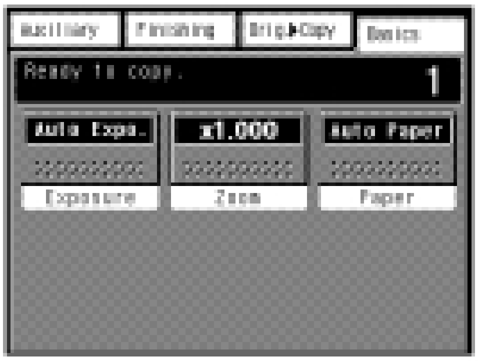
(4) Adjustment of Exposure Level in the Auto Exposure Mode (F5 Mode)

When is this adjustment required?

- *Be sure to perform Auto Exposure adjustment (F5 mode) after the following items have been done.*
  - *PC Drum replacement (PCDrum Counter Clear)*
  - *Memory clear*
  - *RAM Board (PWB-R) replacement*
  - *Exposure Lamp (LA1) replacement*
  - *Exposure Lamp Regulator (PWB-J) replacement*
  - *AE Sensor Board (PWB-H) replacement*
  - *AIDC Sensor (UN13) replacement*
  - *Adjustment of the Aperture Plates*
  - *ATDC adjustment (F8)*
  - *Cleaning of the Optical Section*
  - *Change of the setting for "Exp. Lamp Manual Adj."*

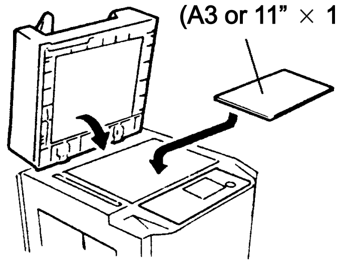
Adjustment procedure

1. Make sure that the Auto Exposure mode is selected on the Touch Panel. Then, place about five blank sheets of A3 or 11" × 17" paper one on top of the other on the Original Glass and lower the ADF.



Ready to copy.

1156D140CA



1075D294AA

2. Call the Tech. Rep. mode menu to the screen.
3. Touch [Function] to show the Function menu on the screen.
4. Touch [F5 Optimum & AE].
5. Press the Start Key to let the copier adjust the exposure level in the Auto Exposure mode. [It will run for about 30 sec.]

NOTE

While the copier is in the adjustment cycle, the Start Key is lit up orange. The key turns green as soon as the adjustment cycle is completed.

6. After the adjustment, press the Panel Reset Key to return the copier to the normal operating state.
7. Check the optimum exposure setting in the Manual Exposure mode.

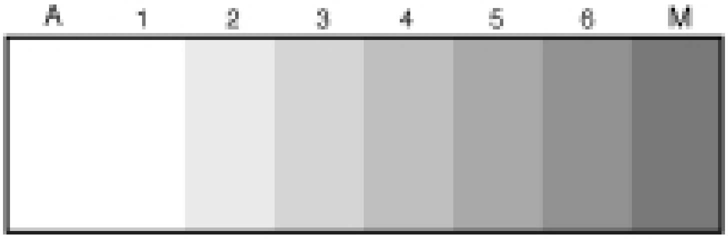
(5) Adjustment of Optimum Exposure Setting in the Manual Exposure Mode

When is this adjustment required?

- *Be sure to perform Manual Exposure adjustment after the following item has been done.*
  - *Adjustment of Exposure Level in the Auto Exposure Mode (F5)*

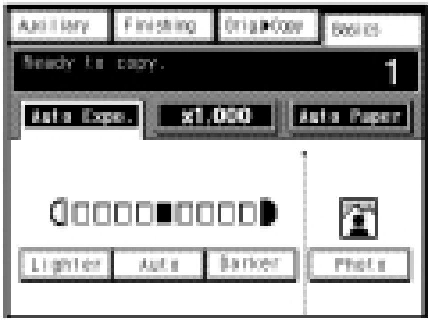
Requirement

No image of step No. 1 of a Kodak Gray Scale should be produced on the copy, but a faint image of step No. 2 should be produced when the manual exposure mode is set to EXP. 5.



1136D300AB

Adjustment Procedure



Ready to copy.

1156D137CB

1. Place the Kodak Gray Scale lengthwise, face down, and at the center on the Original Glass. Place a sheet of pure white A3 or 11” × 17” paper over it and then lower the ADF.
2. Set the copier into the Manual Exposure mode and set the exposure level to Exp. 5 (center value). Make about 3 copies using A3 or 11” × 17” paper (so that the PC Drum sensitivity stabilizes). Then, check that the 3rd copy meets the requirement given above.

   * If the image density is outside the specifications, make the following adjustment.
3. Call the Tech. Rep. mode menu to the screen.
4. Touch [Function] to show the “Function” menu on the screen.

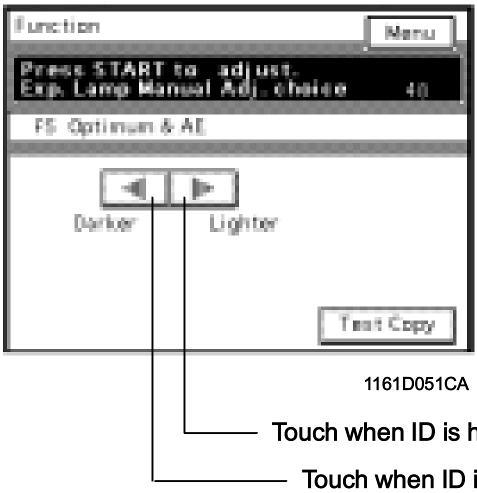
5. Touch [F5 Optimum & AE].
6. Study the sample copy for image density and touch the Darker [◀] or Lighter [▶] key as necessary to change the setting for Exp. Lamp Manual Adj.
7. Touch [Test Copy] and check the copy for image density.

Setting Procedure

If the image density is:

- *Low .... Decrease the setting value.*
- *High .... Increase the setting value.*

* *If the change of the setting does not bring the image density into the specified range, try another settting.*



Press START to adjust.
Exp. Lamp Manual Adj. choice 40

1161D051CA

Touch when ID is high.

Touch when ID is low.

8. Run F5 again.

NOTE

The F5 operation is canceled if the ATDC level falls outside the target range of –2% to +1%.
In this case, run Toner Replenisher or make a copy and then readjust.

(6) Adjustment of the Reference Value for Manual Bypass Paper Width Detection and 2nd Drawer Paper Width Detection (FD Mode)

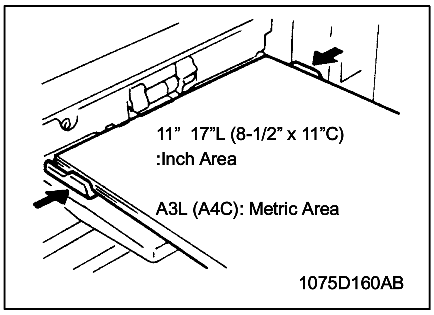
<Manual Bypass Paper Width>

When is this adjustment required?

- *The following adjustment must be made when the memory has been cleared, RAM Board PWB-R or Multi Bypass Table Assy has been replaced, or when Manual Feed Size Detecting Resistor VR1 has been removed and reinstalled.*

Adjustment Procedure

1. Show the Tech. Rep. mode menu on the screen.
2. Touch [Function] to show the Function menu on the screen.
3. Touch [FD Paper Width] to show the FD operation screen.



4. Swing down the Multi Bypass Table.
5. Place several sheets of paper of the following size on the Multi Bypass Table and slide the Edge Guides to the size of the paper
   - Inch Areas: 11” x 17”L or 8-1/2” x 11”C
   - Metric Areas: A3L or A4C

NOTES

- *Press the Edge Guides tightly up against the edges of the paper.*
- *If paper of a wrong size is placed or Edge Guides are not slid to the exact size of the paper, the copier may give a malfunction code (C0F66) as a warning.*

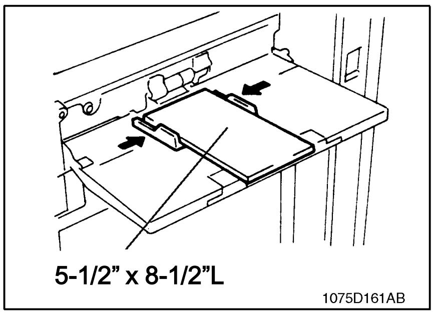
* Go to step 6 for the inch areas and step 10 for the metric areas.

<Inch Areas>

6. Check that “Fd-0” is shown on the FD operation screen. Then, press the Start Key to run the Fd–0 operation.

NOTE

The Start Key is lit up orange during the operation and turns green as soon as the operation is completed.



7. Place several sheets of 5-1/2” x 8-1/2” lengthwise paper on the Multi Bypass Table and slide the Edge Guides to the size of the paper.

NOTES

- *Press the Edge Guides tightly up against the edges of the paper.*
- *If paper of a wrong size is placed or Edge Guides are not slid to the exact size of the paper, the copier may give a malfunction code (C0F66) as a warning.*

8. Touch the select key [▲] on the screen once to set “Fd-1,” then press the Start Key to run the Fd-1 operation.

NOTE

The Start Key is lit up orange during the operation and turns green as soon as the operation is completed.

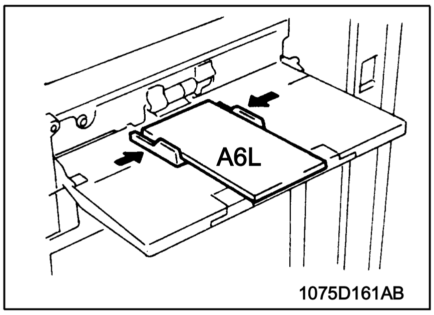
9. After the adjustment has been made, press the Panel Reset Key to return the copier to the normal operating state.

<Metric Areas>

10. Touch the select key [▲] on the screen twice to set "Fd-2," then press the Start Key to run the Fd-2 operation.

NOTE

The Start Key is lit up orange during the operation and turns green as soon as the operation is completed.



11. Place several sheets of A6 lengthwise paper on the Multi Bypass Table and slide the Edge Guides to the size of the paper.

NOTES

- *Press the Edge Guides tightly up against the edges of the paper.*
- *If paper of a wrong size is placed or Edge Guides are not slid to the exact size of the paper, the copier may give a malfunction code (C0F66) as a warning.*

12. Touch the select key [▲] on the screen once to set "Fd-3," then press the Start Key to run the Fd-3 operation.

NOTE

The Start Key is lit up orange during the operation and turns green as soon as the operation is completed.

13. After the adjustment has been made, press the Panel Reset Key to return the copier to the normal operating state.

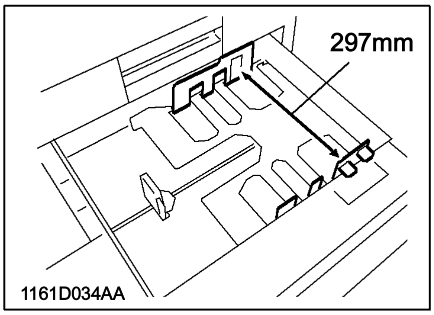
<2nd Drawer Paper Width Detection>

When is this adjustment required?

The following adjustment must be made when memory has been cleared or when RAM Board PWB-R or 2nd Drawer Paper Size Detecting Resistor VR2 has been replaced.

Adjustment Procedure

1. Show the Tech. Rep. mode menu on the screen.
2. Touch [Function] to show the Function menu on the screen.
3. Touch [FD Paper Width] to show the FD operation screen.



4. Slide out the 2nd Drawer.
5. Slide the Edge Guide of the drawer to the 297 mm width position and slide the 2nd Drawer back to the copier.

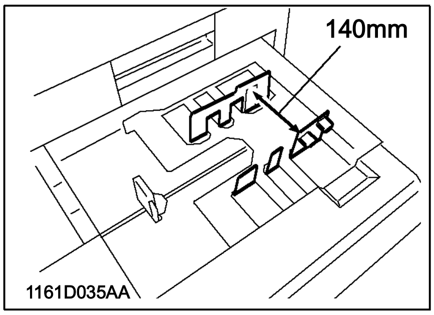
NOTES

- *Be sure to slide the Edge Guide to the exact 297 mm width position.*
- *If it is slid to a wrong position or it is not moved at all, malfunction code C0F61 can appear as a warning.*

6. Touch the select key (▲ key) on the screen four times to set “Fd-4,” then press the Start key to run the Fd-4 operation.

NOTE

The Start key is lit up orange during the operation and turns green as soon as the operation is completed.



7. Slide out the 2nd Drawer. Slide the Edge Guide of the drawer to the 140 mm width position and slide the 2nd Drawer back into the copier.

NOTES

- *Be sure to slide the Edge Guide to the exact 140 mm width position.*
- *If it is slid to a wrong position or it is not moved at all, malfunction code C0F61 can appear as a warning.*

8. Touch the select key (▲ key) on the screen once to set “Fd-5,” then press the Start key to run the operation to set the minimum value of the Edge Guide.

NOTE

- *The Start key is lit up orange during the operation and turns green as soon as the operation is completed.*

9. After the adjustment has been made, press the Panel Reset key to return the copier to the normal operating state.

(7) Adjustment of Zoom Ratio in the Crosswise Direction (“Adjust 1/2: A1 Lens Full Size Position”)

Requirements

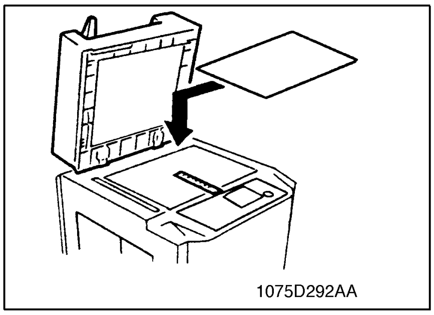
- *The difference should be within ± 0.5% of the actual length.*
- *Adjust so that the following specifications are satisfied with a scale length of 200 mm.*

Zoom Ratio	Specification	Adjusting Mode	Setting Range
Full size (x1.000)	200 ± 1.0 mm	A1 Lens Full Size Position	43 to 58

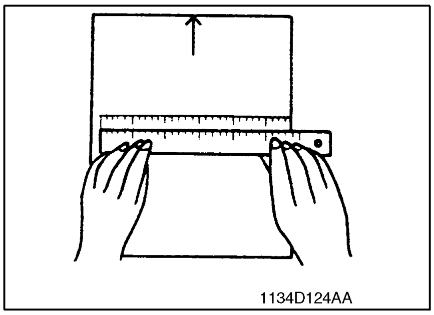
NOTE

This adjustment must be made before the “Drawers, Multi-Bypass Table, Duplex Unit Reference Position Adjustment”.

Adjustment Procedure


1075D292AA

1. Place a scale in parallel with the Original Width Scale and make a copy.
   - * Use the full size (x1.000) mode and 200-mm-or-wider paper.
   - * If the scale is of plastic and transparent, place a blank sheet of paper over it.


1134D124AA

2. Measure the length of the scale on the copy to find the difference.
   - * If the difference is outside the specification, adjust by following the procedure shown below.

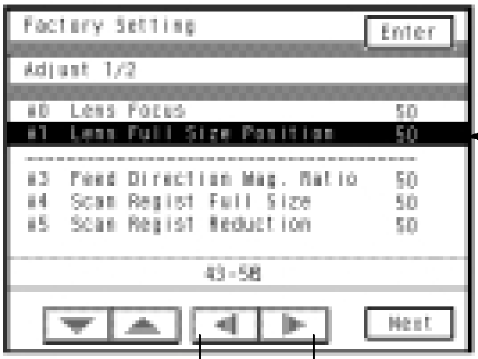
3. Call the “Adjust 1/2” menu to the screen.
4. Touch the select key [▼] to highlight “A1 Lens Full Size Position.”

5. Touch the shift key [◀] or [▶] to change the set value.

Setting Instructions

- *If the scale on the copy is longer than the actual scale, decrease the setting value.*
- *If the scale on the copy is shorter than the actual scale, increase the setting value.*

* *If the measurement does not fall within the specifications through one setting, try another setting.*



```
Factory Setting                      Enter
Adjust 1/2
#0  Lens Focus                        50
#1  Lens Full Size Position           50
--------------------------------------------
#3  Feed Direction Mag. Ratio         50
#4  Scan Regist Full Size             50
#5  Scan Regist Reduction             50
                43-58
```

Setting Value

1161D042CA

Touch This Key if Measurement is Shorter.

Touch This Key if Measurement is Longer.

6. Touch the [Enter] key to validate the setting.
7. Open and close the Front Lower Door or turn OFF and ON Power Switch S1 to change the full size position of the Lens.

NOTES

- *Be aware that the previous data is restored if the Panel Reset Key is pressed to return the copier to the normal operating state. Be sure to touch [Enter] and then [Exit] to resume the normal operating state.*
- *After [Enter] has been touched to validate the setting, open and close the Front Lower Door or turn OFF and ON Power Switch S1. This procedure is necessary to change the full size position of the Lens.*

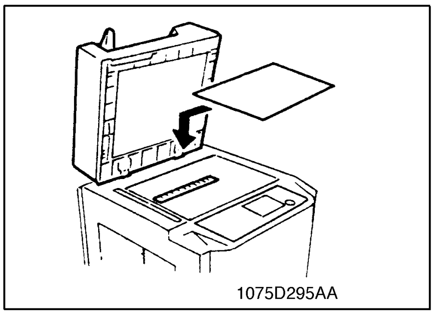
(8) Adjustment of the Zoom Ratio in the Feeding Direction (“Adjust 1/2: A3 Feed Direction Mag. Ratio”)

Requirements

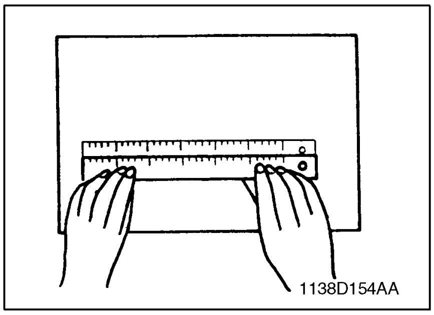
- *The difference should be within ± 0.5% of the actual length.*
- *Adjust so that the following specifications are satisfied with a scale length of 300 mm.*

Zoom Ratio	Specification	Adjusting Mode	Setting Range
Full size (x1.000)	300 ± 1.5 mm	A3 Feed Direction Mag. Ratio	46 to 54

Adjusting Mode



1. Place a scale in parallel with the Original Length Scale (Perpendicular to the Original Width Scale) and make a copy.
   * Use the full size (x1.000) mode and A3 or 11” x 17” paper.
   * If the scale is of plastic and transparent, place a blank sheet of paper over it.



2. Measure the length of the scale on the copy to find the difference.
   * If the difference is outside the specification, adjust following the procedure shown below.

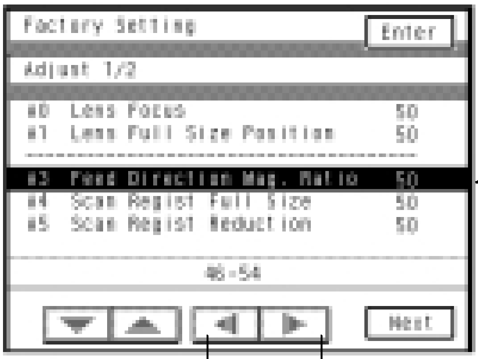
3. Call the “Adjust 1/2” menu to the screen.
4. Touch the select key [▼] to highlight “A3 Feed Direction Mag. Ratio.”

5. Touch the shift key [◀] or [▶] to change the set value.

Setting Instructions

- *If the scale on the copy is longer than the actual scale, decrease the setting value.*
- *If the scale on the copy is shorter than the actual scale, increase the setting value.*

* *If the measurement does not fall within the specifications through one setting, try another setting.*



Factory Setting

Adjust 1/2

#0 Lens Focus 50
#1 Lens Full Size Position 50
#3 Feed Direction Mag. Ratio 50
#4 Scan Regist Full Size 50
#5 Scan Regist Reduction 50

46 - 54

Setting Value

1161D043CA

Touch This Key if Measurement is Shorter.

Touch This Key if Measurement is Longer.

6. Touch [Enter] to validate the setting.

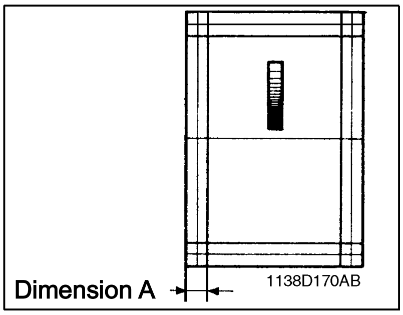
NOTE

Be sure to touch [Enter] before returning the copier to the normal operating state. If the Panel Reset Key is used the old setting remains valid.

(9) Adjustment of the Reference Position of the Multi-Bypass Table, 1st and 2nd Drawers, 3rd Drawer, and Duplex Unit

Requirement

Adjust the position of the Multi-Bypass Table, 1st and 2nd Drawers, 3rd Drawer, and Duplex Unit so that dimension A (20 mm) of the GTC-test chart is within the specification shown below.



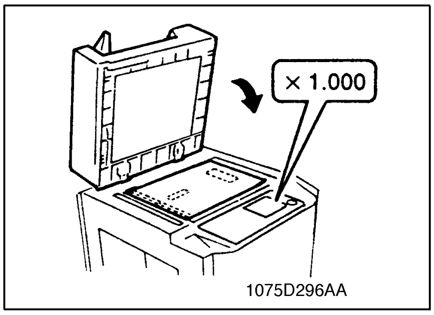
	Zoom Ratio	**Specification**
Multi-Bypass Table, 1st and 2nd Drawers, 3rd Drawer	Full size (x 1.000)	20 ± 2.0 mm
Duplex Unit		20 ± 3.0 mm

NOTE

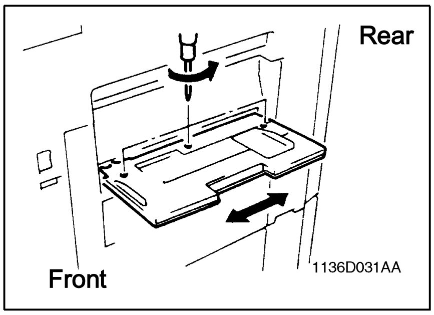
This adjustment should be made after the “adjustment of the zoom ratio in the crosswise direction”.

<Adjustment of the Multi-bypass Table Reference Position>

Adjustment Procedure



1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Feeding a sheet of A3 or 11” x 17” paper through the Multi-Bypass Table, make one full-size copy.
3. Check if dimension A (from the edge up to the reference line) on the copy meets the specifications.



4. If dimension A deviates from the specifications, loosen three screws that secure the Multi-Bypass Table and move the table in the direction of the arrow as necessary.

NOTES

- *If dimension A (20 mm) on the copy is shorter than 18 mm, move the table to the front of the copier.*
- *If dimension A (20 mm) on the copy is longer than 22 mm, move the table to the rear of the copier.*

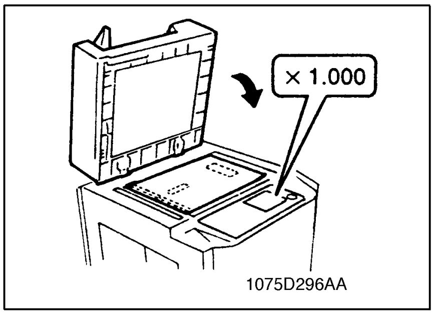
5. After the adjustment is completed, tighten the three mounting screws.

NOTE

If the specification is not satisfied by this adjustment, perform Adjust 2/2: A10 Lens Position Adjust.

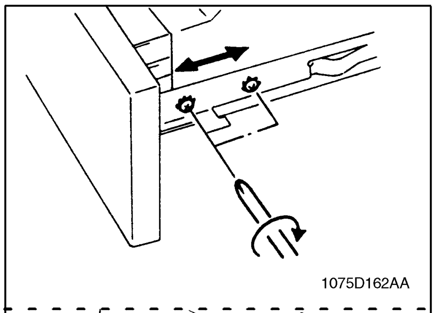
<Adjustment of Reference Position of 1st/2nd Drawers>

Adjustment Procedure

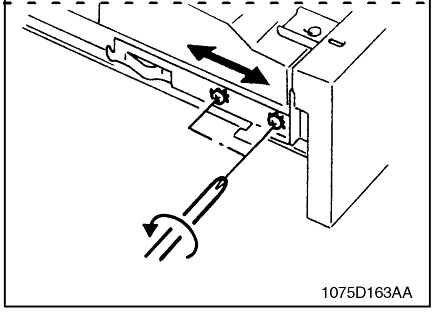


1075D296AA

1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the AFR–9.
2. Feeding two sheets of A3 or 11” x 17” paper from the 1st Drawer, make two full-size copies.
3. Check if dimension A (from the edge up to the reference line) on the second copy meets the specifications.



1075D162AA



1075D163AA

4. If dimension A deviates from the specification, slide out the 1st Drawer. Then, loosen four screws shown on the left and move the Drawer Positioning Plate to the front or rear as necessary.

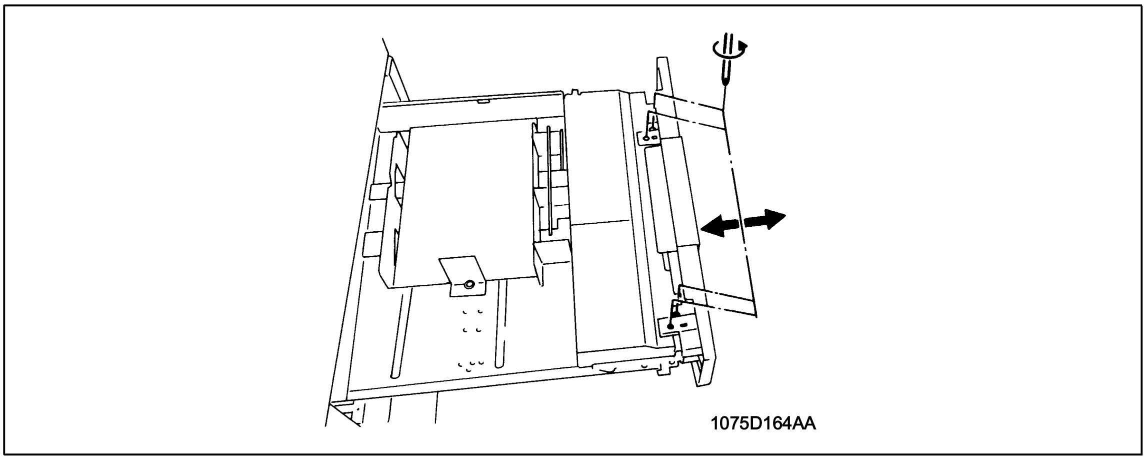
Adjusting Instructions

- *If dimension A (20 mm) on the copy is 18 mm or shorter, move the Positioning Plate backwards.*
- *If dimension A (20 mm) on the copy is 22 mm or longer, move the Positioning Plate towards the front.*

NOTE

Align the left and right Positioning Plates with the scale printed on the Drawer Slide Rail.

5. After the adjustment is completed, tighten two mounting screws of both left and right Positioning Plates to fix them.
6. Loosen four screws shown below and perform the Drawer Cover positioning adjustment.



1075D164AA

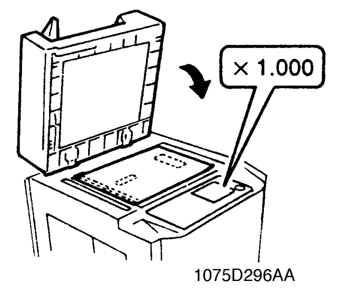
* In the same way as the 1st Drawer, perform the adjustment of reference position of the 2nd Drawer.

NOTE

If the specification is not satisfied by this adjustment, perform Adjust 2/2: A10 Lens Position Adjust.

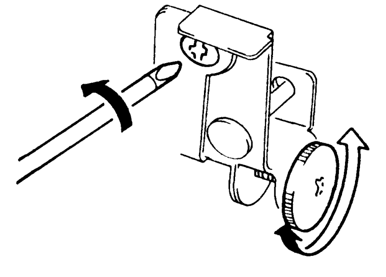
<Adjustment of Reference Position of 3rd Drawer>

Adjustment Procedure

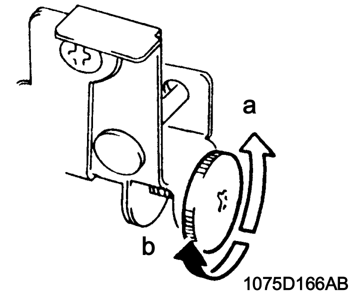


1075D296AA

1. Place the GTC–test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Feed two sheets of A4 crosswise paper from the 3rd Drawer and make two full size copies.
3. Check if dimension A on the second copy meets the specifications.



1075D165AA



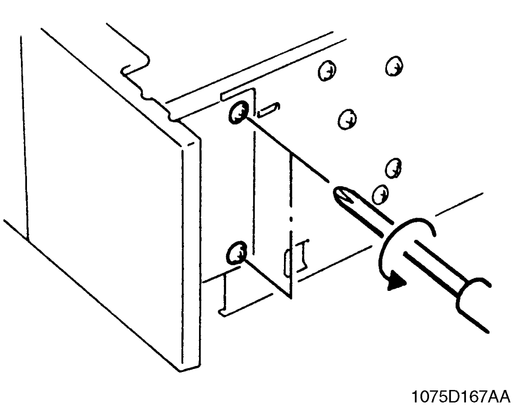
1075D166AB

4. If dimension A deviates from the specification, press the Paper Descent Key and slide out the 3rd Drawer.
5. Slide out the 1st and 2nd Drawers and remove two screws and the Front Right Cover.
6. Loosen one screw and adjust by turning the shoulder screw.

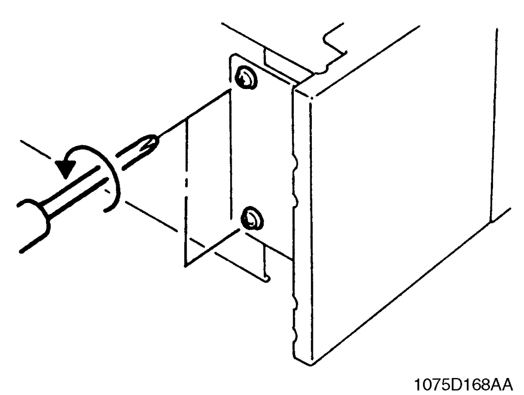
Adjusting Instructions

- *If dimension A (20 mm) on the copy is 18 mm or shorter, turn the shoulder screw counterclockwise (direction a).*
- *If dimension A (20 mm) on the copy is 22 mm or longer, turn the shoulder screw clockwise (direction b).*

7. After the adjustment is completed, tighten the screw.
8. Loosen the four screws shown below and perform the Drawer Cover positioning adjustment.



1075D167AA



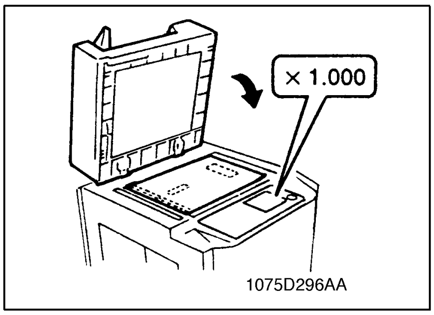
1075D168AA

NOTE

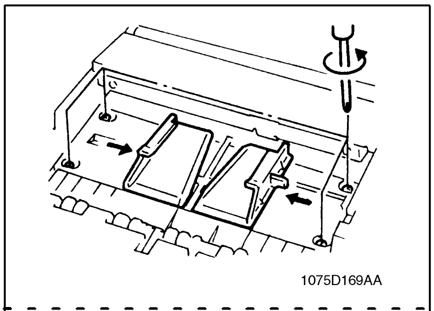
If the specification is not satisfied by this adjustment, perform Adjust 2/2: A10 Lens Position Adjust.

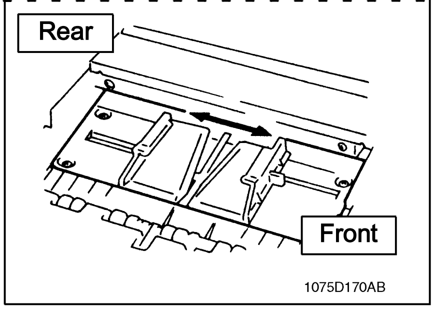
<Adjustment of Reference Position of Duplex Unit>

Adjustment Procedure



1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Touch [Orig. ▶ Copy], then touch [1 ▶ 2] to set the copier into the mode for making 2–sided copies.
3. Make two full size copies on A3 or 11” x 17” paper.
4. Check if dimension A on the copy meets the specification. (Use the top face of the second copy.)





5. If dimension A deviates from the specification, open the Front Lower Door and release and swing up the Upper Half of the copier.
6. Slide out the Duplex Unit and open the Duplex Unit Upper Guide Plate.
7. Slide the Front/Rear Edge Guide Plates to the center, loosen four screws and move the Front/Rear Edge Guide Plates Assy as instructed below.

Adjusting Instructions

- *If dimension A (20 mm) on the copy is 17 mm or shorter, move the plates assy toward the front.*
- *If dimension A (20 mm) of the copy is 23 mm or longer, move the plates assy backward.*

8. After the adjustment is completed, tighten the four screws to fix the plates assy.

NOTE

If the specification is not satisfied by this adjustment, perform Adjust 2/2: A10 Lens Position Adjust.

<Adjust 2/2: A10 Lens Position Adjust>

When is this adjustment required?

Perform the following adjustment if the specifications are not satisfied when the adjustment of the reference position for the Multi-Bypass Table, 1st and 2nd Drawers, 3rd Drawer, and Duplex Unit has been done.

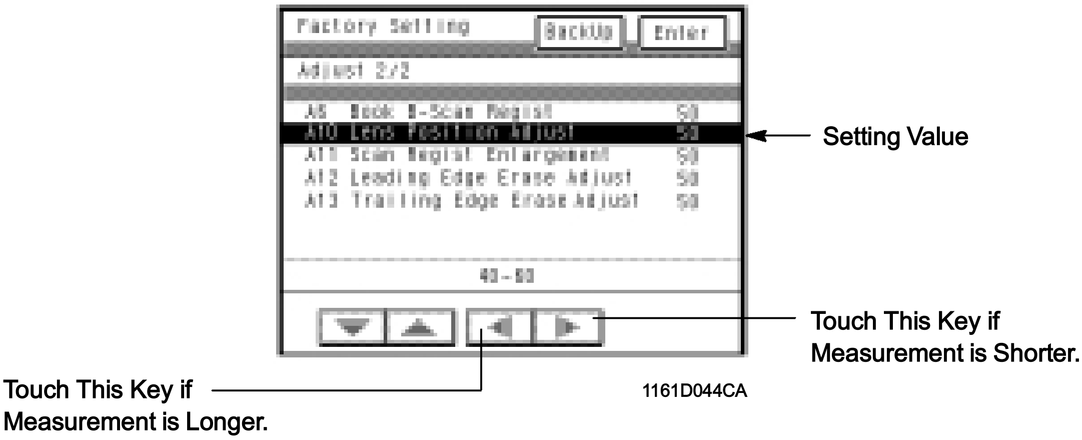
Adjustment Procedure

1. Call the “Adjust 1/2” menu to the screen and touch [Next] to show the “Adjust 2/2” menu.
2. Touch the select key [▼] or [▲] to select “A10 Lens Position Adjust.”
3. Touch the shift key [◀] or [▶] to change the setting value of the lens position adjustment.

Setting Instructions

When dimension A (20 mm) on the copy deviates from the specification, change the setting value of the lens position adjustment.

- *If it is shorter than the specification, increase the setting value (Example: Setting value: 50 to 51).*
- *If it is longer than the specification, decrease the setting value (Example: Setting value: 50 to 49).*


Factory Setting
BackUp
Enter
Adjust 2/2
Setting Value
40 - 60
▼
▲
◀
▶
Touch This Key if Measurement is Shorter.
Touch This Key if Measurement is Longer.

A9 Book B-Scan Regist 50
A10 Lens Position Adjust 50
A11 Scan Regist Enlargement 50
A12 Leading Edge Erase Adjust 50
A13 Trailing Edge Erase Adjust 50

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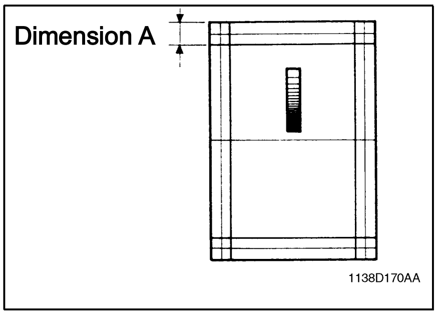
4. Touch [Enter] to validate the setting value.
5. Open and close the Front Lower Door or turn OFF and ON Power Switch S1 to change the lens position.
6. Check the adjustment of the reference positions of all drawers, Duplex Unit and the Multi–Bypass Table.

NOTES

- *Be sure to touch the Enter key before returning to the normal operation mode. If the Panel Reset Key is used, the previous setting remains valid. After touching the Enter key to validate the set value, be sure to open/close the Front Lower Door or turn OFF/ON the Power Switch.*
- *After the adjustment has been completed, be sure to adjust (check) the reference positions of all drawers, Duplex Unit and the Multi-Bypass Table.*

(10) Adjustment of the Leading Edge Registration in the Full Size Mode (Adjust 1/2: A4 Scan Regist Full Size)

Requirement



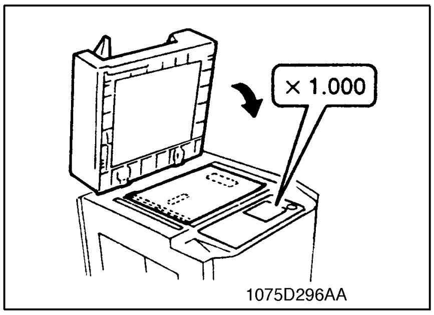
Dimension A on the copy of the GTC-test chart should meet the specification shown below.

Zoom Ratio	Specification	Adjusting Mode	Setting Range
Full size (x1.000)	20 ± 2.0 mm	A4 Scan Regist Full Size	40 to 60

NOTE

This adjustment should be performed after the adjustment of zoom ratio in the feeding direction (Adjust 1/2: A3 Feed Direction Mag. Ratio) has been completed.

Adjustment Procedure



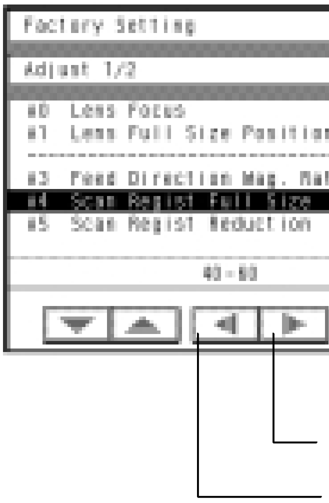
1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Make two copies on A3 or 11" x 17" paper in the full size mode.
3. Check if dimension A on the copy meets the specification. (Check using the second copy.) If dimension A deviates from the specification, adjust by following the procedure shown below.
4. Call the "Adjust 1/2" menu to the screen.
5. Touch the select key [▼] or [▲] to select "A4 Scan Regist Full Size."

6. Touch the shift key [◀] or [▶] to change the setting value.

Setting Instructions

When dimension A (20 mm) on the copy deviates from the specification, change the setting value of the leading edge registration adjustment in the full size mode.

- *If it is 22.0 mm or longer, increase the setting value (Example: Setting value: 50 to 51).*
- *If it is 18.0 mm or shorter, decrease the setting value (Example: Setting value: 50 to 49).*



Adjust 1/2

#0	Lens Focus	50
#1	Lens Full Size Position	50
#3	Feed Direction Mag. Ratio	50
#4	Scan Regist Full Size	50
#5	Scan Regist Reduction	50

40 - 60

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Touch This Key if Measurement is Longer.

Touch This Key if Measurement is Shorter.

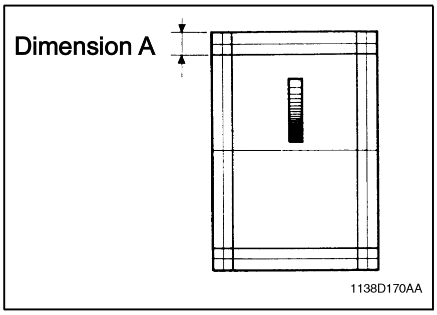
7. Touch the Enter key to validate the setting value.

Caution

Be sure to touch the Enter key before returning to the normal operation mode. If the Panel Reset Key is used, the previous setting remains valid.

(11) Adjustment of the Leading Edge Registration in the Reduction Mode (Adjust 1/2: A5 Scan Regist Reduction)

Requirement



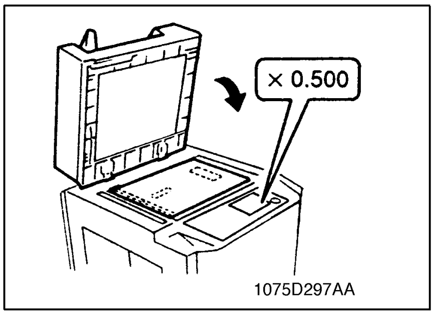
Dimension A on the copy should meet the specification shown below.

Zoom Ratio	Specification	Adjusting Mode	Setting Range
Reduction (× 0.500)	10 ± 2.0 mm	A5 Scan Regist Reduction	40 to 60

NOTE

This adjustment should be performed after the adjustment of the zoom ratio in the feeding direction (Adjust 1/2: A3 Feed Direction Mag. Ratio) has been completed.

Adjustment Procedure



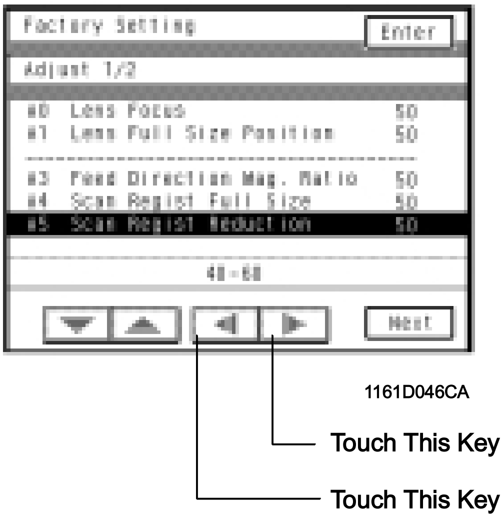
1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Make two copies on A3 or 11” × 17” paper in the reduction (× 0.500) mode.
3. Check if dimension A on the copy meets the specification. (Check using the second copy.) If dimension A deviates from the specification, adjust by following the procedure shown below.
4. Call the “Adjust 1/2” menu to the screen.
5. Touch the select key [▼] or [▲] to select “A5 Scan Regist Reduction”.

6. Touch the shift key [◀] or [▶] to change the setting value.

Setting Instructions

When dimension A (20 mm) on the copy deviates from the specification, change the setting value of the leading edge registration adjustment in the reduction mode.

- *If it is 12.0 mm or longer, increase the setting value (Example: Setting value: 50 to 51).*
- *If it is 8.0 mm or shorter, decrease the setting value (Example: Setting value: 50 to 49).*



Factory Setting

Adjust 1/2

#0 Lens Focus 50
#1 Lens Full Size Position 50
#3 Feed Direction Mag. Ratio 50
#4 Scan Regist Full Size 50
#5 Scan Regist Reduction 50

40-60

Enter
▼
▲
◀
▶
Next
Touch This Key if Measurement is Longer.
Touch This Key if Measurement is Shorter.

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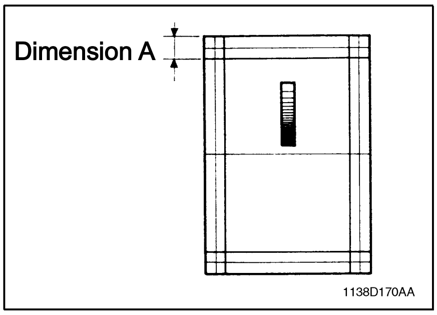
7. Touch the Enter key to validate the setting value.

NOTE

Be sure to touch the Enter key before returning to the normal operation mode. If the Panel Reset Key is used, the previous setting remains valid.

(12) Adjustment of the Leading Edge Registration in the Enlargement Mode (Adjust 2/2: A11 Scan Regist Enlargement)

Requirement



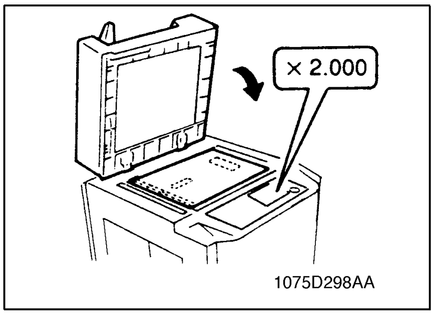
Dimension A on the copy should meet the specification shown below.

Zoom Ratio	Specification	Adjusting Mode	Setting Range
Enlargement (×2.000)	40 ± 4.0 mm	A11 Scan Regist Enlargement	40 to 60

NOTE

This adjustment should be performed after the adjustment of the zoom ratio in the feeding direction (Adjust 1/2: A3 Feed Direction Mag. Ratio) has been completed.

Adjustment Procedure



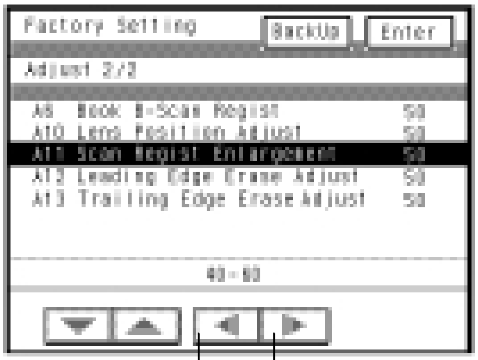
1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Make two copies on A3 or 11” × 17” paper in the enlargement (×2.000) mode.
3. Check if dimension A on the copy meets the specification. (Check using the second copy.) If dimension A deviates from the specification, adjust by following the procedure shown below.
4. Call the “Adjust 1/2” menu to the screen and touch [Next] to show the “Adjust 2/2” menu.
5. Touch the select key [▼] or [▲] to select “A11 Scan Regist Enlargement.”

6. Touch the shift key [◀] or [▶] to change the setting value.

Setting Instructions

When dimension A (20 mm) on the copy deviates from the specification, change the setting value of the leading edge registration adjustment in the enlargement mode.

- *If it is 42.0 mm or longer, increase the setting value (Example: Setting value: 50 to 51).*
- *If it is 38.0 mm or shorter, decrease the setting value (Example: Setting value: 50 to 49).*



Adjust 2/2

A9 Book B-Scan Regist 50
A10 Lens Position Adjust 50
A11 Scan Regist Enlargement 50
A12 Leading Edge Erase Adjust 50
A13 Trailing Edge Erase Adjust 50

40 - 60

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Touch This Key if Measurement is Longer.

Touch This Key if Measurement is Shorter.

7. Touch the Enter key to validate the setting value.

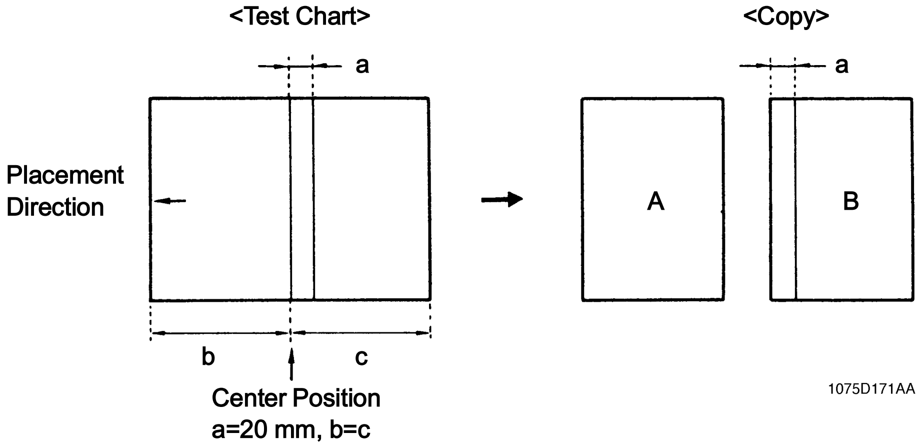
NOTE

Be sure to touch the Enter key before returning to the normal operation mode. If the Panel Reset Key is used, the previous setting remains valid.

(13) Adjustment of the Leading Edge Registration for Book Second Page (Adjust 2/2: A6 Book B-Scan Regist.)

Requirement

Dimension a on the side B copy made in the Book mode of a test chart (A3 or 11" x 17") as shown below should measure as follows.



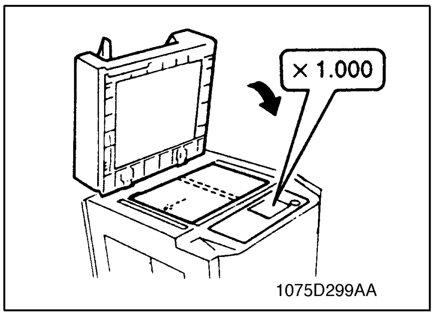
Copy mode	Specification	Adjusting Mode	Setting Range
Full size, Book copy	20 ± 3.5 mm	A6 Book B-Scan Regist.	45 to 55

NOTE

This adjustment should be performed after the following adjustments have been completed.

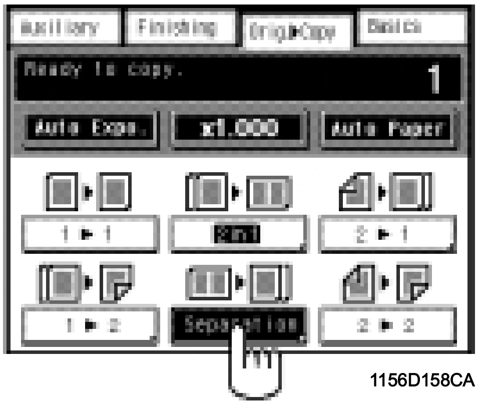
- *Adjustment of the leading edge registration in the full size mode (Adjust 1/2: A4 Scan Regist Full Size)*
- *Adjustment of the leading edge registration in the reduction mode (Adjust 1/2: A5 Scan Regist Reduction)*
- *Adjustment of the leading edge registration in the enlargement mode (Adjust 2/2: A11 Scan Regist Enlargement)*

Adjustment Procedure



1. Place the test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.

2. On the Basic screen, touch [Origi. ▶ Copy] ; then, select [Separation].


Auxiliary
Finishing
Origi.▶Copy
Basics
Auto Expo.
x1.000
Auto Paper
1 ▶ 1
2in1
2 ▶ 1
1 ▶ 2
Separation
2 ▶ 2

Ready to copy. 1

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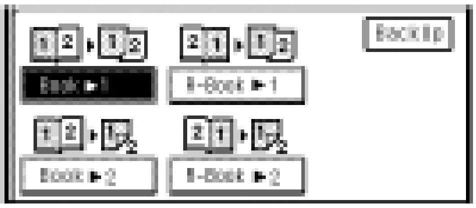
3. Select [Book ▶ 1] and make three single copies on A4 crosswise paper at full size (× 1.000) mode. Check the third copy for the leading edge registration.


Book ▶ 1
B-Book ▶ 1
Back Up
Book ▶ 2
B-Book ▶ 2

1156D161CA

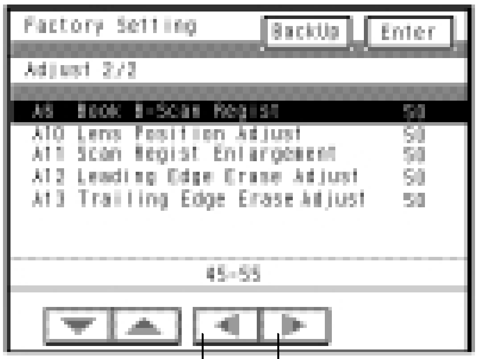
4. Check if dimension a on the side B copy meets the specification. If dimension a deviates from the specification, adjust by following the procedure shown below.
5. With the “Adjust 1/2” menu on the screen, touch [Next] to show the “Adjust 2/2” menu.
6. Check that “A6 Book B-Scan Regist” is highlighted.

7. Touch the shift key [◀] or [▶] to change the setting value.

Setting Instructions

When dimension a (20 mm) on the side B copy deviates from the specification, change the setting value of the Book B-Scan Regist adjustment.

- *If it is 23.5 mm or longer, increase the setting value (Example: Setting value: 50 to 51).*
- *If it is 16.5 mm or shorter, decrease the setting value (Example: Setting value: 50 to 49).*



A9 Book B-Scan Regist 50
A10 Lens Position Adjust 50
A11 Scan Regist Enlargement 50
A12 Leading Edge Erase Adjust 50
A13 Trailing Edge Erase Adjust 50
45~55

1161D048CA

Touch This Key if Measurement is Longer.

Touch This Key if Measurement is Shorter.

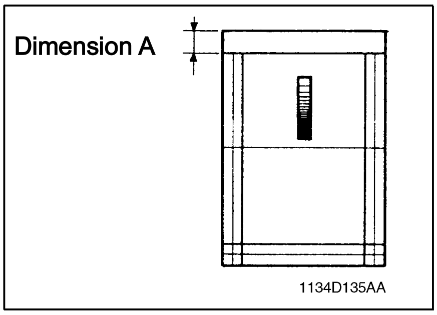
8. Touch the Enter key to validate the setting value.

NOTE

Be sure to touch the Enter key before returning to the normal operation mode. If the Panel Reset Key is used, the previous setting remains valid.

(14) Adjustment of the Image Leading Edge Erase Width (Adjust 2/2: A12 Leading Edge Erase Adjust)

Requirement



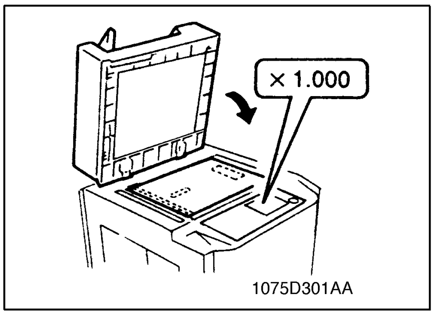
- *Dimension A (erase width) on the copy of the GTC-test chart should meet the specification shown below.*
- *"Leading Edge Erase" of the Tech. Rep. Choice mode 2/ 3 should be set to ON.*

Zoom Ratio	Specification	Adjusting Mode	Setting Range
Full size (× 1.000)	0.5 to 6.5 mm	A12 Leading Edge Erase Adjust	42 to 58

NOTES

- *This adjustment should be performed after the following adjustments have been completed.*
  - *Adjustment of the leading edge registration in the full size mode (Adjust 1/2: A4 Scan Regist Full Size)*
  - *Adjustment of the leading edge registration in the reduction mode (Adjust 1/2: A5 Scan Regist Reduction)*
  - *Adjustment of the leading edge registration in the enlargement mode (Adjust 2/2: A11 Scan Regist Enlargement)*
  - *Adjustment of the leading edge registration for book second page (Adjust 2/2: A6 Book B-Scan Regist)*
- *Be sure to set "Leading Edge Erase" of the Tech. Rep. Choice mode to ON before starting this adjustment.*

Adjustment Procedure



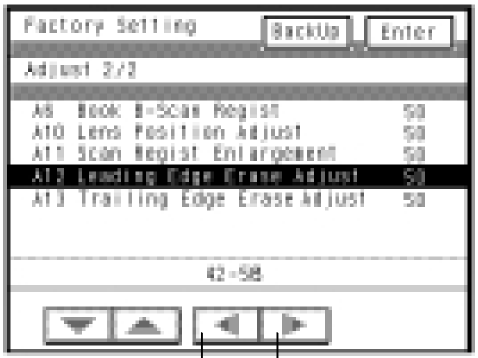
1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Make two copies on A3 or 11" × 17" paper in the full size mode.
3. Check if dimension A (erase width) of the test chart on the copy meets the specification. (Check using the second copy.)
   If dimension A deviates from the specification, adjust by following the procedure shown below.

4. With the the “Adjust 1/2” menu on the screen, touch [Next] to show the “Adjust 2/2” menu.
5. Touch the select key [▼] or [▲] to select “A12 Leading Edge Erase Adjust.”
6. Touch the shift key [◀] or [▶] to change the setting value.

Setting Instructions

When dimension A (erase width) on the copy deviates from the specification, change the setting value of the leading edge erase width adjustment.

- *If the erase width is longer, decrease the setting value (Example: Setting value: 50 to 49).*
- *If the erase width is shorter, increase the setting value (Example: Setting value: 50 to 51).*



A9 Book B-Scan Regist 50
A10 Lens Position Adjust 50
A11 Scan Regist Enlargement 50
A12 Leading Edge Erase Adjust 50
A13 Trailing Edge Erase Adjust 50

42~58

1161D049CA

Touch This Key if Measurement is Longer.

Touch This Key if Measurement is Shorter.

7. Touch the Enter key to validate the setting value.

NOTE

Be sure to touch the Enter key before returning to the normal operation mode. If the Panel Reset Key is used, the previous setting remains valid.

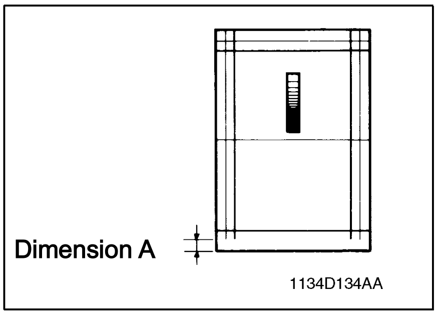
8. After the adjustment has been completed, set the “Leading Edge Erase” of the Tech. Rep. Choice mode to OFF and check that there is no black band at the image leading edge.

NOTE

If the leading edge registration adjustment has been set to the maximum value and the leading edge erase width is shortened (2 mm or shorter), a black band (shadow of the edge of the Original Glass) can be produced in the crosswise direction.

(15) Adjustment of the Image Trailing Edge Erase Width (Adjust 2/2: A13 Trailing Edge Erase Adjust)

Requirement



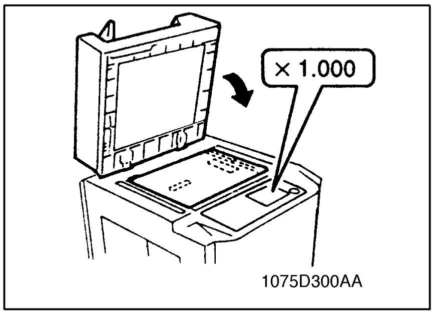
- *Dimension A (erase width) on the copy of the GTC-test chart should meet the specification shown below.*
- *"Trailing Edge Erase" of the Tech. Rep. Choice mode 2/3 should be set to ON.*

Zoom Ratio	Specification	Adjusting Mode	Setting Range
Full size (× 1.000)	0.5 to 7.5 mm	A13 Trailing Edge Erase Adjust	42 to 58

NOTES

- *This adjustment should be performed after the adjustment of the image leading edge erase width has been completed.*
- *Be sure to set "Trailing Edge Erase" of the Tech. Rep. Choice mode 2/3 to ON before starting this adjustment.*

Adjustment Procedure



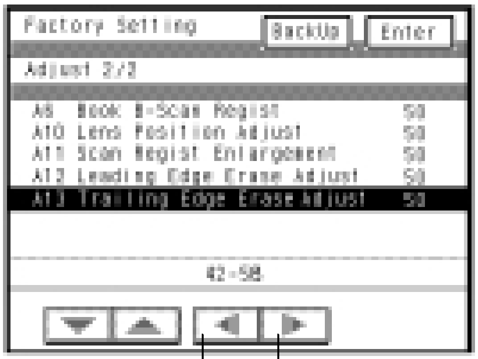
1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Make two copies on A3 or 11" × 17" paper in the full size mode.
3. Check if dimension A (erase width) on the copy meets the specification. (Check using the second copy.)
   If dimension A deviates from the specification, adjust by following the procedure shown below.
4. With the the "Adjust 1/2" menu on the screen, touch [Next] to show the "Adjust 2/2" menu.
5. Touch the select key [▼] or [▲] to select "A13 Trailing Edge Erase Adjust."

6. Touch the shift key [◀] or [▶] to change the setting value.

Setting Instructions

When dimension A (erase width) on the copy deviates from the specification, change the setting value of the trailing edge erase width adjustment.

- *If the erase width is longer, decrease the setting value (Example: Setting value: 50 to 49).*
- *If the erase width is shorter, increase the setting value (Example: Setting value: 50 to 51).*



A9 Book B-Scan Regist 50
A10 Lens Position Adjust 50
A11 Scan Regist Enlargement 50
A12 Leading Edge Erase Adjust 50
A13 Trailing Edge Erase Adjust 50

42 - 58

1161D050CA

Touch This Key if Measurement is Longer.

Touch This Key if Measurement is Shorter.

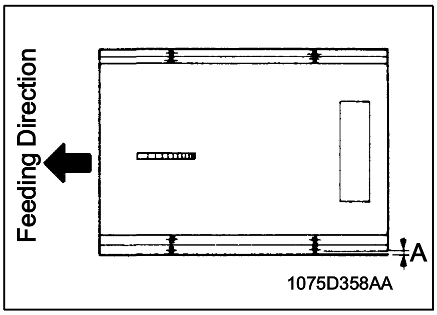
7. Touch the Enter key to validate the setting value.

NOTE

Be sure to touch the Enter key before returning to the normal operation mode. If the Panel Reset Key is used, the previous setting remains valid.

(16) Adjustment of the Image Erase Lamp Position

Requirement



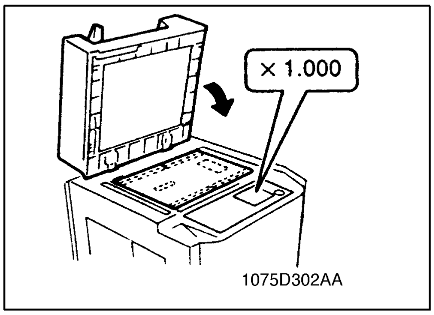
Dimension A (erase width) on the copy of the GTC-test chart should meet the specification shown below.

Zoom Ratio	Specification
Full size (×2.000)	1 ± 0.5 mm

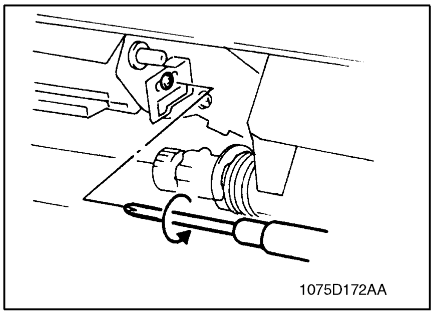
NOTE

This adjustment should be performed after the adjustment of the Multi-Bypass Table, 1st and 2nd Drawers, 3rd Drawer, and Duplex Unit reference positions has been completed.

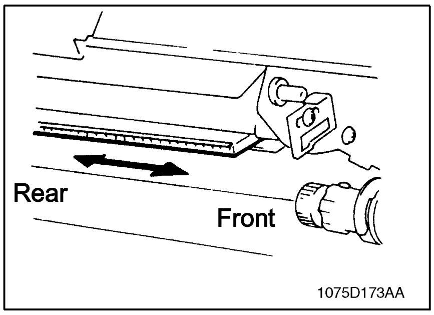
Adjustment Procedure



1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Make two copies on A3 or A4 crosswise paper in the full size mode.
3. Check if dimension A (erase width) on the copy meets the specification. (Check using the second copy.) If dimension A deviates from the specification, adjust by following the procedure shown below.



4. Open the Front Lower Door and release and swing up the Upper Half of the copier.
5. Pull out the PC Unit and cover the PC Drum with the PC Drum Cloth.
6. Loosen the Image Erase Lamp adjustment screw and adjust the position of the lamp by following the adjustment instructions shown below.



Adjusting Instructions

- *When dimension A (erase width) on the copy deviates from the specification, adjust the Image Erase Lamp position.*
  - *If dimension A is 1.5 mm or longer, move the lamp towards the front.*
  - *If dimension A is 0.5 mm or shorter, move the lamp backwards.*

7. After the position adjustment has been completed, tighten the Image Erase Lamp adjustment screw.

(17) Focus-Positioning of the Scanner and 2nd/3rd Mirrors Carriage

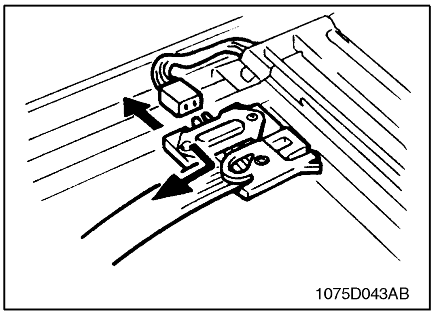
When is this adjustment required?

- *After the Scanner Drive Cable has been replaced.*
- *When the Scanner Fixing Bracket has been removed from the Scanner Drive Cable.*
- *When an image problem (diagonal distortion) has occurred.*

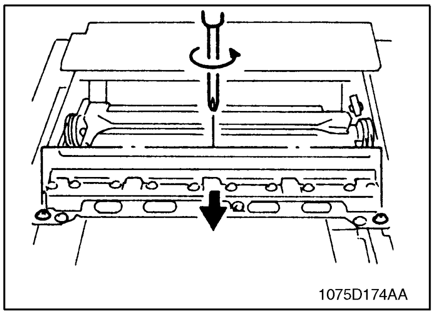
Requirement

With the Scanner fixed to the Scanner Drive Cables, there should be no gap between the Scanner/Mirrors Carriage Positioning Jig and the Scanner and also between the Scanner/Mirrors Carriage Positioning Jig and the 2nd/3rd Mirrors Carriage.

Adjustment Procedure

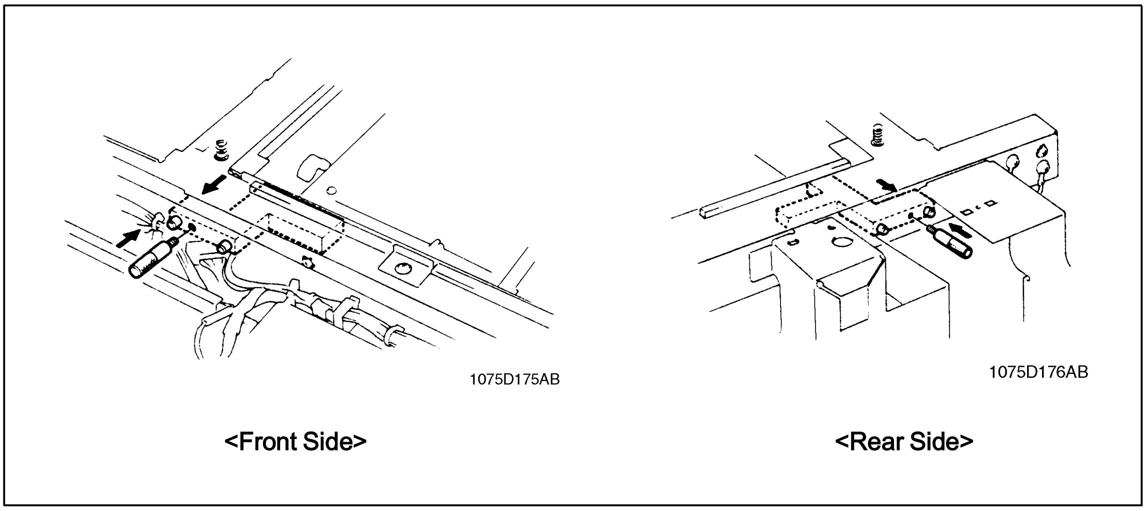


1. Remove the ADF, Rear Upper Cover, Upper Rear Cover, Right Upper Cover, Left Upper Cover, Upper Right Cover, control panel, and the Original Glass.
2. Slide the Scanner in the scanning direction about 1/3 of the way.
3. Remove the flat cable holder and the connector as shown on the left.



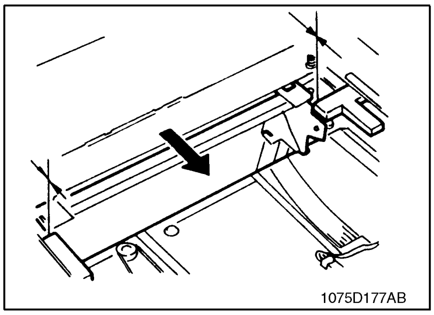
4. Loosen the Scanner positioning screws at the front and back and move the Scanner in the scanning direction.

5. Fit the Front Scanner/Mirrors Carriage Positioning Jig as shown below and tighten it with the set screw. In the same way as above, fit the Rear Scanner/Mirrors Carriage Positioning Jig as shown below and tighten it with the set screw.



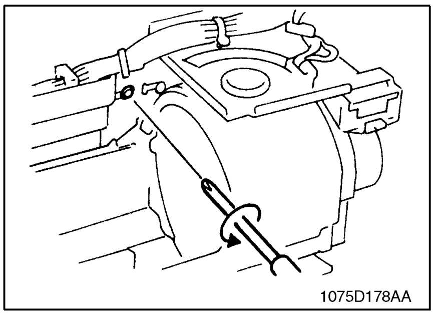
<Front Side>

<Rear Side>

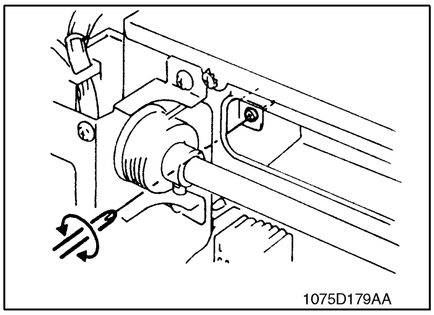


6. Press the 2nd/3rd Mirrors Carriage up against the jig and check if there is no gap betwen the mirrors carriage and the front jig and also between the mirrors carriage and rear jig. If there is a gap, adjust by following the procedure shown below.

<When there is a gap at the front side of the 2nd/3rd Mirrors Carriage>

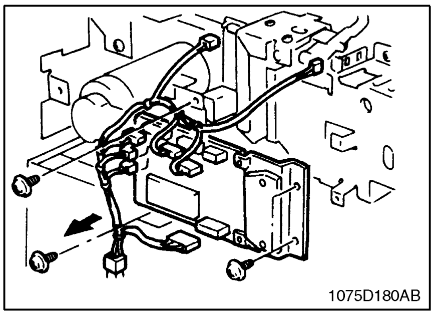


(1) Open the Front Upper Door. Swing out the bottle holder to remove the Toner Bottle.
(2) Swing the bottle holder closed and loosen the cable fixing screw shown.

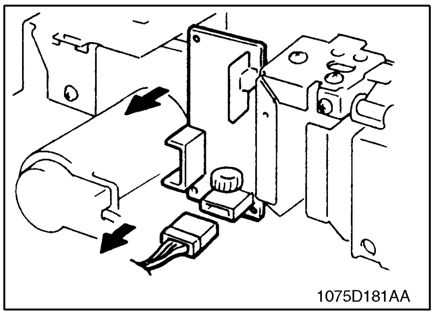


(3) Turn the adjusting screw at the front adjustable anchor so that there is no gap between the 2nd/3rd Mirrors Carriage and the jig.
(4) Tighten the cable fixing screw.

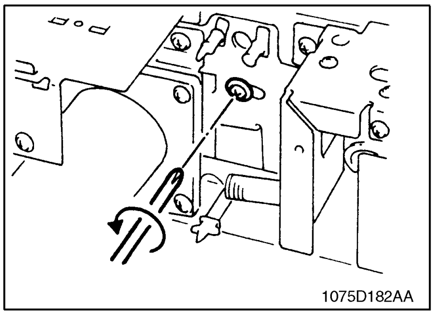
<When there is a gap at the rear side of the 2nd/3rd Mirrors Carriage>



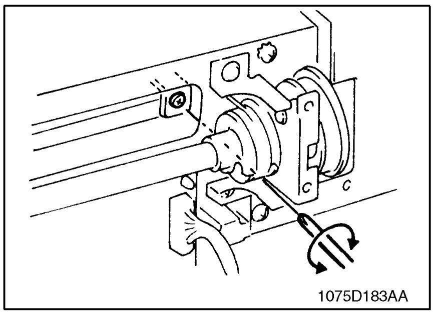
(1) Remove eight connectors and five screws, and remove the Scanner Control Processor Board mounting bracket.



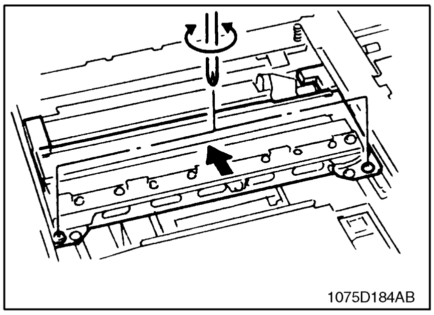
(2) Unplug one connector and remove the Exposure Lamp Regulator.


1075D182AA

(3) Loosen the cable fixing screw shown on the left.


1075D183AA

(4) Turn the adjusting screw at the rear adjustable anchor so that there is no gap between the 2nd/3rd Mirrors Carriage and the jig.
(5) After the adjustment is completed, tighten the cable fixing screw.

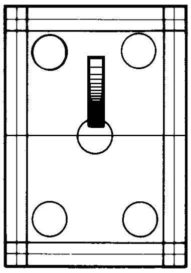

1075D184AB

7. Press the Scanner up against the jig and tighten the Scanner positioning screws at both the front and rear.
8. Remove one set screw from each of the Front and Rear Scanner/Mirrors Carriage Positioning Jigs. Then, remove the jigs.

(18) Focus Adjustment

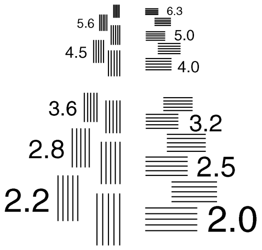
Requirement

Each line of the Resolution Bars "5.6" on the copy of the GTC-test chart should be clearly discernible.



1075D185AA

Enlarged View of ○ Part on the Left



1075D186AA

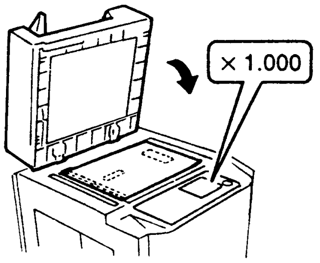
Zoom Ratio	Specification
Full size (× 1.000)	Resolution Bars 5.6 are discernible.

NOTE

*This adjustment should be performed after the positioning of the Scanner and 2nd/3rd Mirrors Carriage and positioning of the 4th/5th Mirrors (*1) have been completed.*

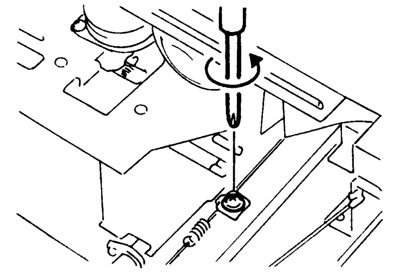
*(*1) Refer to (11) Winding of the Lens Drive Cable for the positioning of the 4th/5th Mirrors Carriage.*

Adjustment Procedure



1075D296AA

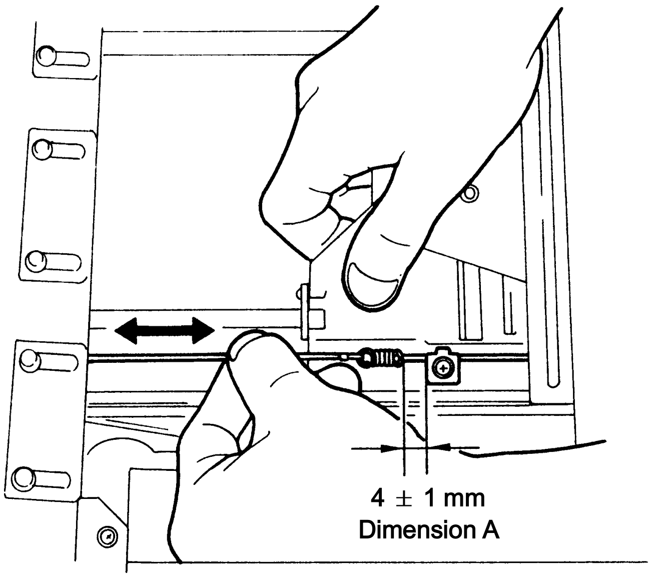
1. Place the GTC-test chart face down on the Original Glass and align its rear left corner with the reference marker on the Original Width Scale on the left side of the platen. Then, lower the ADF.
2. Make two full size copies on A3 or 11" × 17" paper. (Set the image density so it is convenient for checking.)
3. Check if each line of Resolution Bars 5.6 on the copy is clearly discernible. (check using the second copy.)
   If bars 5.6 are indiscernible, adjust by following the procedure shown below.



1075D187AA

4. Remove the Original Glass.
5. Loosen the Lens Drive Cable fixing screw.

6. Hold the Lens Base Plate and gradually move the Lens Drive Cable by hand within 4 ± 1 mm of dimension A in the illustration shown below.



NOTE

After the Lens Drive Cable has been moved, turn ON the Power Switch and make the adjustment of the zoom ratio in the crosswise direction (Adjust 1/2: A1 Lens Full Size Position).

7. After the Lens Drive Cable has been moved, tighten the Lens Drive Cable fixing screw.
8. Make two full size copies again to check to see if the specification is met. If it is not met, repeat the steps beginning with step 5.
9. After the adjustment has been made, make the adjustment of the zoom ratio in the crosswise direction (Adjust 1/2: A1 Lens Full Size Position).

(19) Adjustment of the Image Transfer/Paper Separator Coronas Height

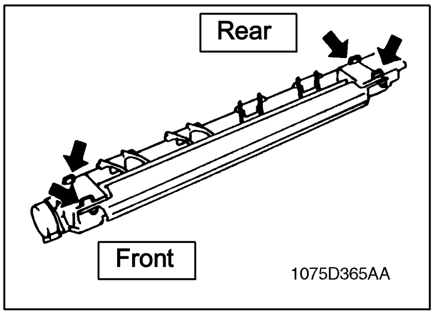
When is this adjustment required?

- *After the Image Transfer/Paper Separator Coronas Retracting Assy has been removed and reinstalled.*
- *When an image problem (poor image transfer, faulty paper separation) has occurred.*

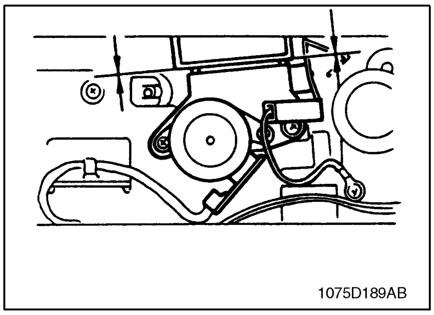
Requirement

With the Upper Half of the copier locked in position, there should be no gap at the front two positioning points for the Image Transfer/Paper Separator Coronas Unit and at the front frame (plastic part) of the Cleaning Unit.

Adjustment Procedure

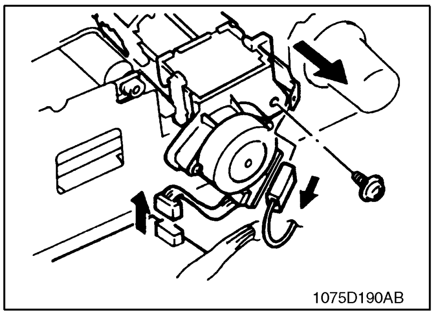


1. Open the Front Lower Door.
2. Remove the image transfer section cover and the PC Unit cover.
3. Remove the Rear Lower Cover.
4. Check to see if there is any gap at the front and rear positioning points at four places for the Image Transfer/Paper Separator Coronas Unit and at the front and rear frames (plastic parts) of the Cleaning Unit.



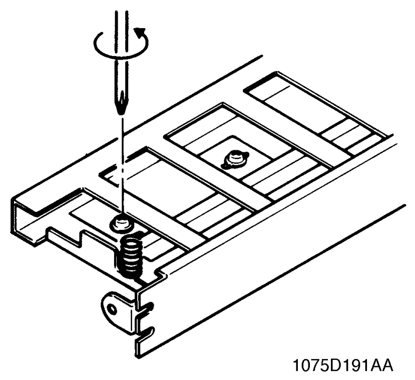
* Shown on the left are the front positioning points for the Image Transfer/Paper Separator Coronas Unit. Since it is hard to see the rear positioning points, move the unit up and down to check for a possible gap in the rear.

5. If there is any gap at the front or rear positioning points of the Image Transfer/Paper Separator Coronas Unit, perform the following steps.

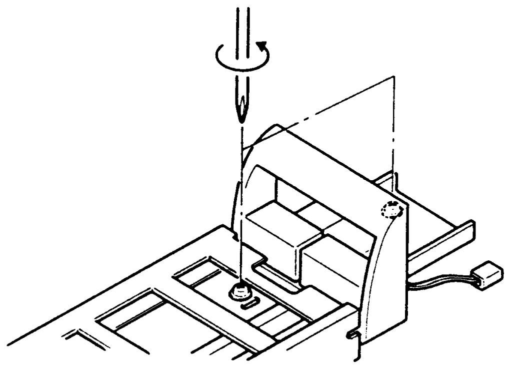


6. Release and swing up the Upper Half of the copier.
7. Unplug one connector of the M14/M16/M22 Drive Board and remove one ground terminal.
8. Remove one screw and the Image Transfer/Paper Separator Coronas.

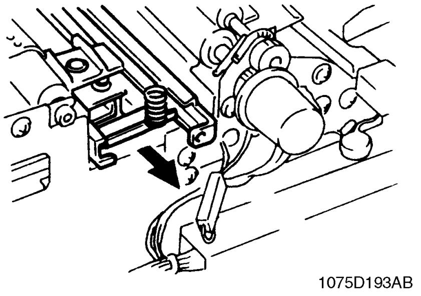
9. Slide out the PC Unit and cover the PC Drum with the PC Drum Cloth.
10. Loosen one mounting screw at the front of the Image Transfer/Paper Separator Coronas Retracting Assy.
11. Remove the Rear Lower Cover and loosen two mounting screws in the rear of the Image Transfer/Paper Separator Coronas Retracting Assy.



<Front>

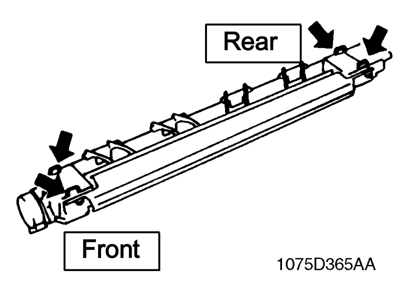


<Rear>

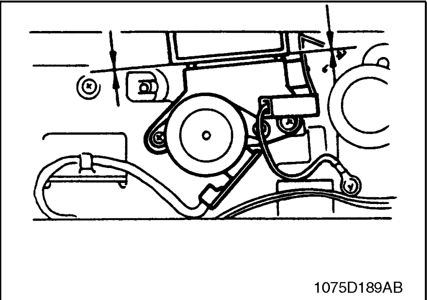


12. Move the Image Transfer/Paper Separator Coronas Retracting Assy to the front of the copier.
13. Then, tighten the three mounting screws to secure the Image Transfer/Paper Separator Coronas Retracting Assy.
14. Remove the PC Drum Cloth and slide the PC Unit back into the copier.

15. Install the Image Transfer/Paper Separator Coronas Unit and tighten one screw.
16. Plug in one connector of the M14/M16/M22 Drive Board and fit one ground terminal.



17. Swing down the Upper Half of the copier and check for any gap at the front and rear positioning points at four places for the Image Transfer/Paper Separator Coronas Unit and at the front and rear frames (plastic parts) of the Cleaning Unit.



* Shown on the left are the front positioning points for the Image Transfer/Paper Separator Coronas Unit. Since it is hard to see the rear positioning points, move the unit up and down to check for a possible gap in the rear.

18. Readjust if there is still a gap.

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4 MISCELLANEOUS

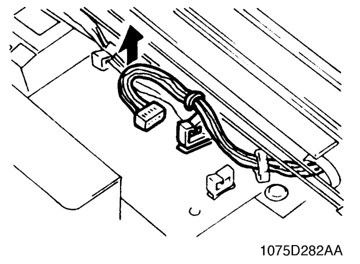
1161SBD0401A

4-1. INSTALLATION OF THE ORIGINAL SIZE DETECTING SENSORS (OPTION) (Except for Hong Kong)

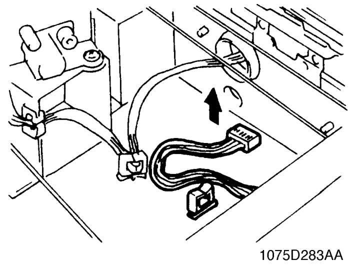
<Inch Areas>

Installation procedure

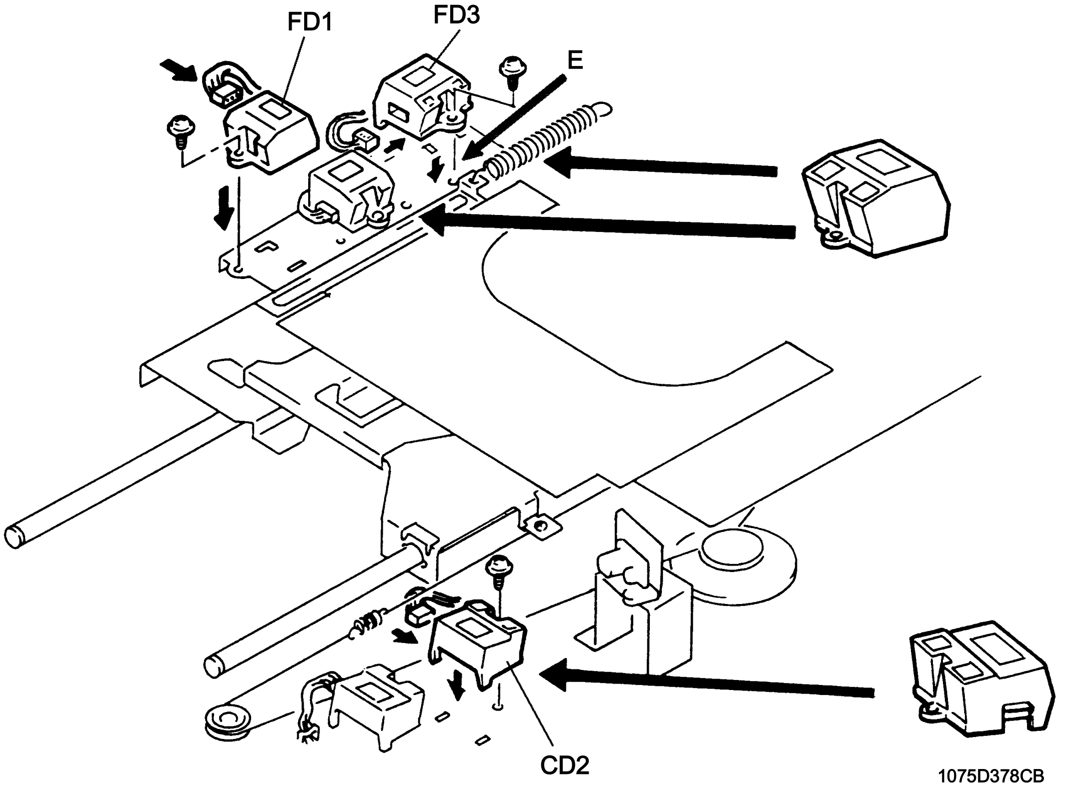
FD1/3 Connector

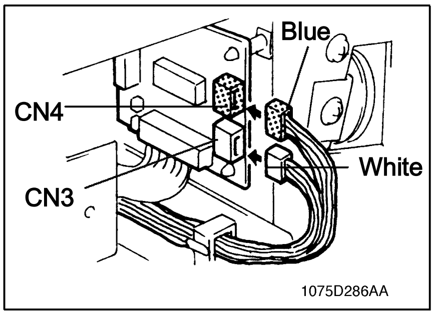


CD2 Connector



1. Remove the Original Glass.
2. Remove the Optical Cover.
3. Remove the connectors (5-pin) for FD1 and FD3 and the connector (5-pin) for CD2 illustrated on the left from the wiring saddles.
4. Plug in the connectors to the Original Size Detecting Sensors FD1, FD3, and CD2 and install the sensors at the locations shown below.

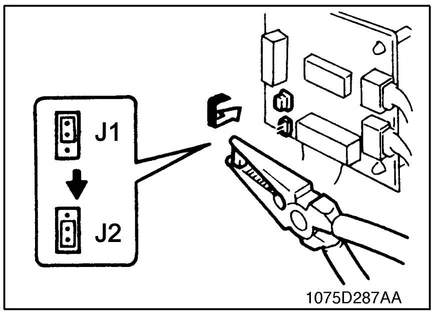




5. Remove the Left Upper Cover.
6. Connect the FD3 and CD2 connectors (white and blue) to Original Size Detecting Board UN3.

NOTES

- *Plug the blue connector into CN4 of UN3 and the white connector into CN3.*
- *The FD5 signal line is contained in CN2 (already connected.*



7. Change the position of the short-circuit connector of jumper connectors J1 and J2 on UN3 as shown on the left.

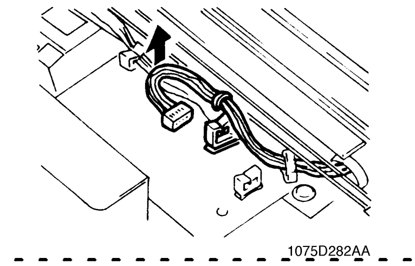
8. After these steps have been performed, turn ON Power Switch S1 and run the F7 (Orig. Sensor) operation. For details, see (1) Initial Adjustment of Original Size Detection (F7 Mode).

NOTE

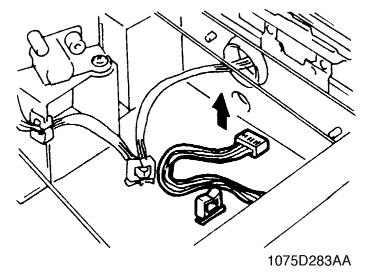
Be sure to run the F7 operation after the Original Size Detecting Sensors FD1, FD3, and CD2 have been installed or an erroneous detection of paper size results.

<Metric Areas>
Installation Procedure

FD3 Connector

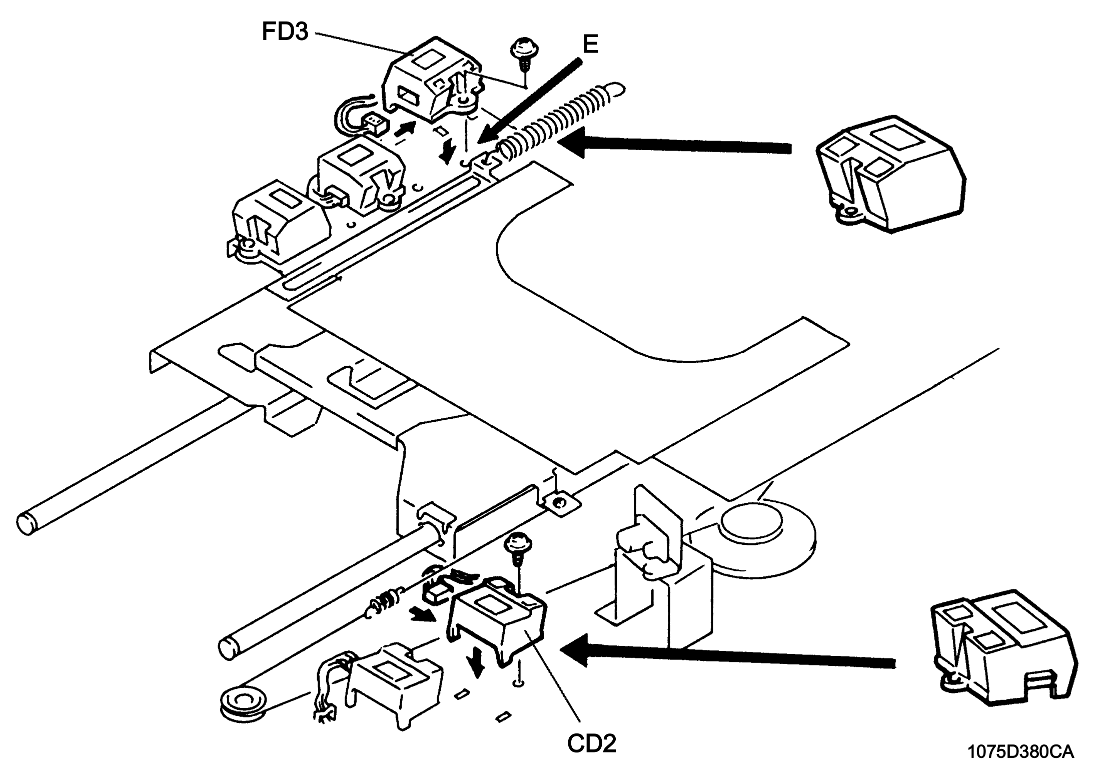


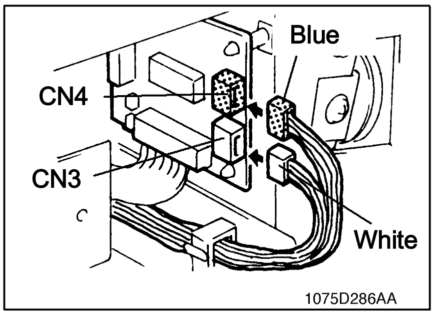
CD2 Connector



1. Remove the Original Glass.
2. Remove the Optical Cover.
3. Remove the connectors (5-pin) for FD3 and CD2 illustrated on the left from the wiring saddles.

4. Plug in the connectors to the Original Size Detecting Sensors FD3 and CD2 and install the sensors at the locations shown below.

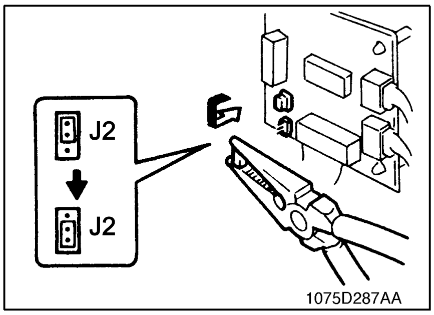




5. Remove the Left Upper Cover.
6. Connect the FD3 and CD2 connectors (white and blue) to Original Size Detecting Board UN3 as shown.

NOTE

Plug the blue connector into CN4 of UN3 and the white connector into CN3.



7. Change the position of the short-circuit connector of jumper connector J2 on UN3 as shown on the left.

8. After these steps have been performed, turn ON Power Switch S1 and run the F7 (Orig. Sensor) operation. For details, see (1) Initial Adjustment of Original Size Detection (F7 Mode).

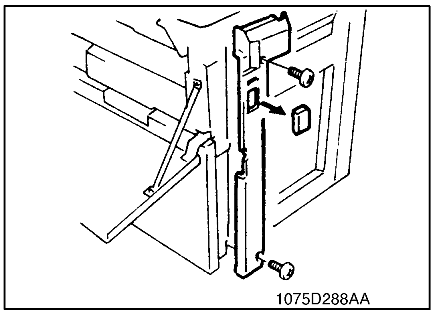
NOTE

Be sure to run the F7 operation after the Original Size Detecting Sensors FD3 and CD2 have been installed or an erroneous detection of paper size results.

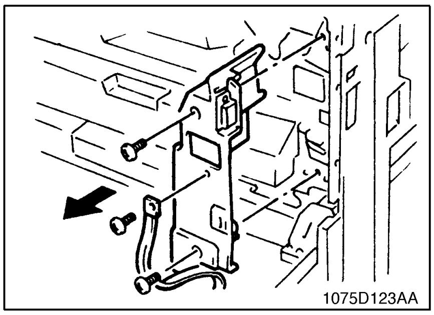
1161SBD0402A

4-2. INSTALLATION OF THE PLUG-IN COUNTER (OPTION) MOUNTING BRACKET

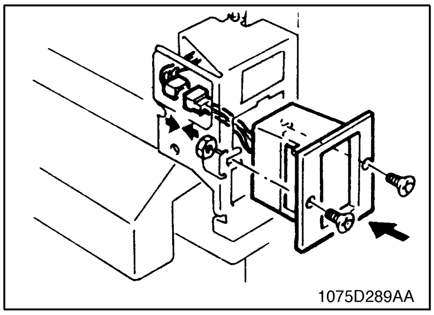
Installation Procedure


1075D288AA

1. Remove the counter cover from the Right Front Cover.
2. Open the Front Lower Door.


1075D123AA

3. Remove the Right Front Cover.
4. Remove the Total Counter cover.


1075D289AA

5. Connect the connector (4-pin) of the Plug-In Counter mounting bracket.
6. Install the Plug-In Counter mounting bracket with one screw (at the rear), and one screw and nut (at the front).

NOTE

When the Plug-In Counter mounting bracket is installed, be sure to set the “Plug-In Counter” of “System Input” available from the Tech. Rep. Mode to ON.

1161SBD000EA

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1161SBS000AA

EP8015/EP6001

SWITCHES ON PWBs, TECH. REP. SETTINGS

MINOLTA

1161SBS000BA

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1151SBS0100A

1 PRECAUTIONS FOR HANDLING THE PWBs

1151SBS0101A

1-1. Precautions for Transportation and Storage

a) Before transporting or storing the PWBs, put them in protective conductive cases or bags so that they are not subjected to high temperature (and they are not exposed to direct sunlight).
b) Protect the PWBs from any external force so that they are not bent or damaged.
c) Once the PWB has been removed from its conductive case or bag, never place it directly on an object that is easily charged with static electricity (such as a carpet or plastic bag).
d) Do not touch the parts and printed patterns on the PWBs with bare hands.

1161SBS0102A

1-2. Precautions for Replacement and Inspection

a) Whenever replacing the PWB, make sure that the power cord of the copier has been unplugged.
b) When the power is on, the connectors must not be plugged in or unplugged.
c) Use care not to strap the pins of an IC with a metal tool.
d) When touching the PWB, wear a wrist strap and connect its cord to a securely grounded place whenever possible. If you cannot wear a wrist strap, touch the metal part to discharge static electricity before touching the PWB.

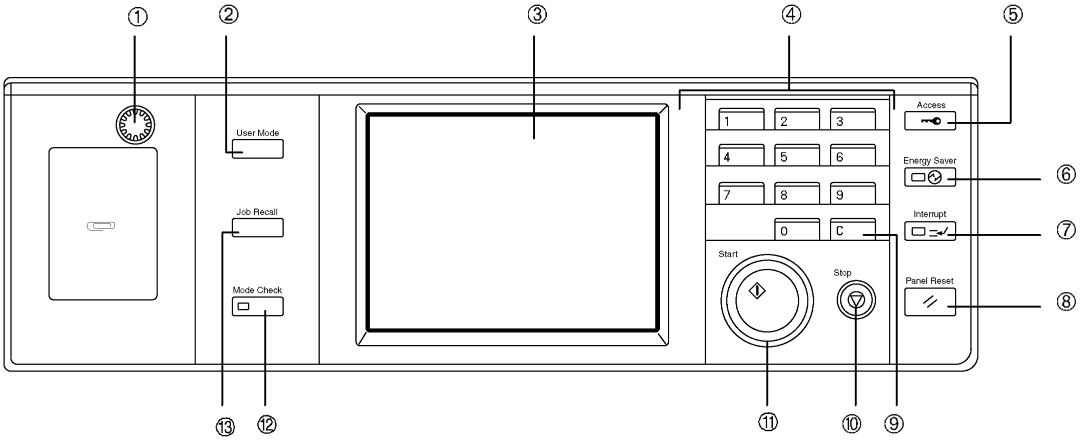
1149SBS0200A

2 CONTROL PANEL KEYS AND TOUCH PANEL

* For more details, see the “Operator’s Manual” shipped with the copier.

1161SBS0201A

2-1. Control Panel Keys



1149O002EA

① Display Contrast Knob
- Varies the brightness of the Touch Panel.

② User Mode Key
- Changes the screen to the User Mode setting screen.

③ Touch Panel
- Shows various screens and messages.

④ 10-Key Pad
- Numeric keypad used for entering the number of copies to be made, zoom ratio, access number, and the Tech. Rep. mode settings.

⑤ Access Mode Key
- When either “100 Accounts” or “1000 Accounts” has been selected for the “Copy Track” function, the entry of the access number and the press of this key (Access Mode) will allow the user to make copies.

⑥ Energy Saver Key
- Sets the copier into the Energy Saver mode.

⑦ Interrupt Key
- Sets the copier into, or lets it leave, the Interrupt mode.

⑧ Panel Reset Key
- Clears all control panel settings made previously, initializing the copier.
  Note: It does not, however, clear the contents of the zoom and job program memory and the settings made immediately before the Interrupt mode.

⑨ Clear Key
- Clears the number-of-copies setting, zoom ratio, and counter count.

⑩ Stop Key
- Stops a copy cycle.

⑪ Start Key
- Starts a copy cycle.

⑫ Mode Check Key
- Shows the Mode Check screen on which the user can check the current copying settings.

⑬ Job Recall Key
- Selects the Job Recall screen which allows the user to recall or check a copy-job program previously stored in memory.

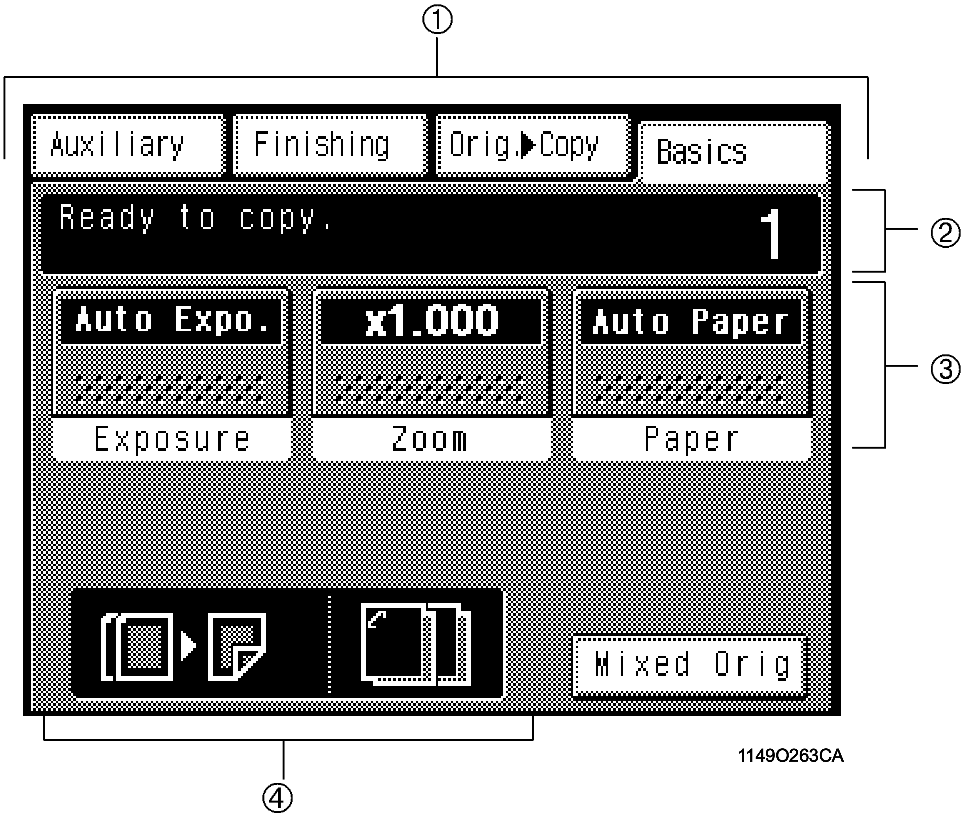
1149SBS0202A

2-2. Explanation of the Touch Panel

1161SBS020201A

1. Basic Screen

- The Basic screen is an initial screen that appears when the copier is turned ON, panel is reset, or when auto clear is activated.


①
Auxiliary
Finishing
Orig.▶Copy
Basics
Ready to copy.
1
②
Auto Expo.
x1.000
Auto Paper
③
Exposure
Zoom
Paper
Mixed Orig
④

1149O263CA

① Supplementary Function Keys
- Selects the corresponding menu screen, either Auxiliary, Finishing, or Orig. ▶ Copy.

② Message Display
- Shows the current copier status, operating instructions, and other data including the number of copies selected and the amount of paper still available for use.

③ Basic Function Keys
- Allows the user to select the exposure level, zoom ratio, and copy paper.

④ Function Display
- Shows graphic representations of the settings currently made for Orig. ▶ Copy and Finishing.

1161SBS020202A

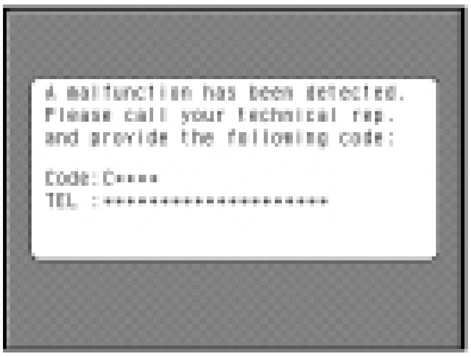
2. Warning Screens

- The warning screen may be a malfunction display, error display, warning display, or a caution display.

<Malfunction Display>

- A malfunction display is given when trouble occurs which cannot be corrected by the user.

Example: Malfunction that can be identified with a specific code.



A malfunction has been detected.
Please call your technical rep.
and provide the following code:

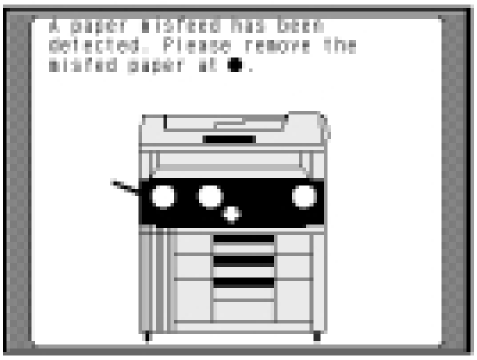
Code:C****
TEL :**********************

1149O421CA

<Error Display>

- An error display is given when trouble occurs which can be corrected by the user.

Examples: Paper misfeed, toner empty, door open.



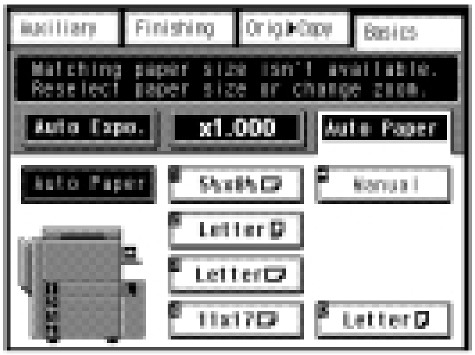
A paper misfeed has been detected. Please remove the misfed paper at ●.

1161O180CA

<Warning Display>

- A warning display is given when any further copier operation will not be possible, or only faulty results will come out, due to erroneous panel settings or other cause.

Example:
Unmatched paper size in Auto Paper



Matching paper size isn't available.
Reselect paper size or change zoom.

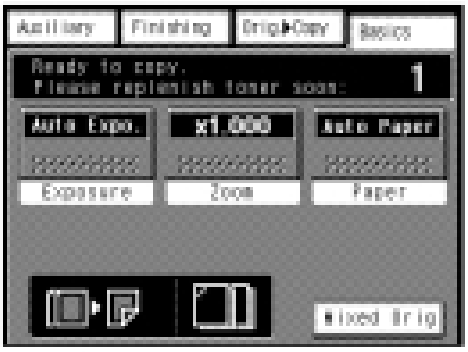
Auxiliary
Finishing
Orig▸Copy
Basics
Auto Expo.
x1.000
Auto Paper
Auto Paper
5½x8½
Manual
Letter
Letter
11x17
Letter

1161O225CA

<Caution Display>

- A caution display is given when, though further copier operation will be possible, it could result in a malfunction.

Example:
Toner empty



Ready to copy.
Please replenish toner soon:

Auxiliary
Finishing
Orig▸Copy
Basics
1
Auto Expo.
x1.000
Auto Paper
Exposure
Zoom
Paper
Mixed Orig

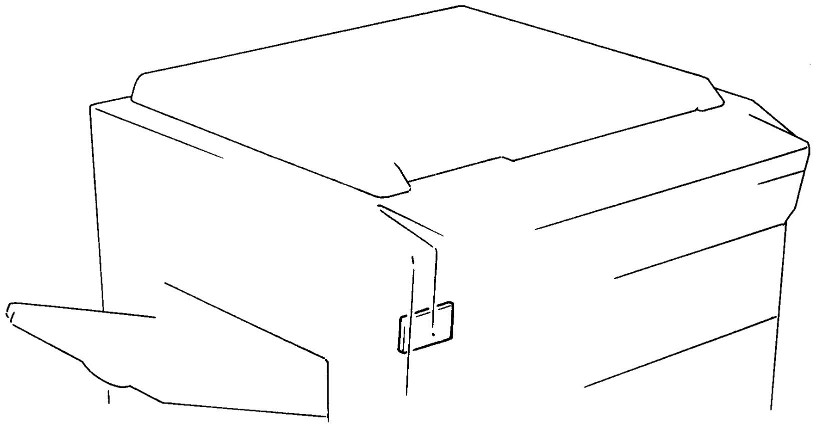
1149O385CA

1151SBS0300A

3 FUNCTIONS OF SWITCHES AND POINTS ON PWB-I

1151SBS0301A

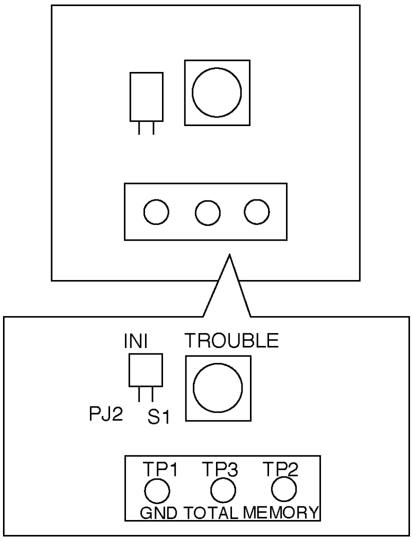
3-1. PWB-I Location



1156S001AA

1161SBS0302A

3-2. Tech. Rep. Settings Switches Board PWB-I



1161S002CA

Symbol	Name	Description
S1	Trouble Reset Switch	Resets a malfunction including those of the Exposure Lamp (C04XX) and fusing (C05xx).
PJ2	Initialize Switch	Forcibly resets a misfeed or malfunction that occurrs due to incorrect operation, etc. when it cannot be reset by opening and closing the Front Door or the press of S1.
TP1	GND Test Point	Ground terminal used for memory clear.
TP2	Memory Clear Test Point	Initializes all data except the counts of electronic counters, access numbers and administrator number for Copy Track, and RD mode functions.

<Clearing Procedures>

- Initialize Points PJ2
  1. Turn OFF the Power Switch.
  2. With PJ2 closed, turn ON the Power Switch.
  3. In approx. 5 sec. open PJ2.
  4. Check that the message “Initialize completed” is shown on the Touch Panel, then touch “Enter.”
- Memory Clear Test Point TP2
  1. Turn OFF the Power Switch.
  2. With the circuit across TP1 and 2 closed, turn ON the Power Switch.
  3. In approx. 5 sec. open the circuit across TP1 and 2.
  4. Check that the message “Memory Clear completed” is shown on the Touch Panel, then touch “Enter.”

NOTE

- If an erratic operation or display occurs, perform the clearing procedures in the order of PJ2 and TP2.
- When memory clear has been performed, make the necessary settings again.

<List of Data Cleared by Switches and Points>

Clearing Method Data Cleared	Front Door Open/Close	Trouble Reset Switch (S1)	Initialize Switch (PJ2)	Memory Clear Test Point (TP2)
Misfeed display	○	○	○	○
Malfunction display (except Exposure Lamp and fusing system)	○	○	○	○
Malfunction display (all including Exposure Lamp and fusing system)	–	○	○	○
Erratic operation/display	–		○	○
User mode	–		–	○
Service mode	–	–	–	○
F5/F7 setting values	–		–	○
System Input	–		–	○
Accessory Test	–	–	–	○
Level History	–		–	○
Adjust mode	–		–	○

○ : Cleared (initialized) – : Not cleared:

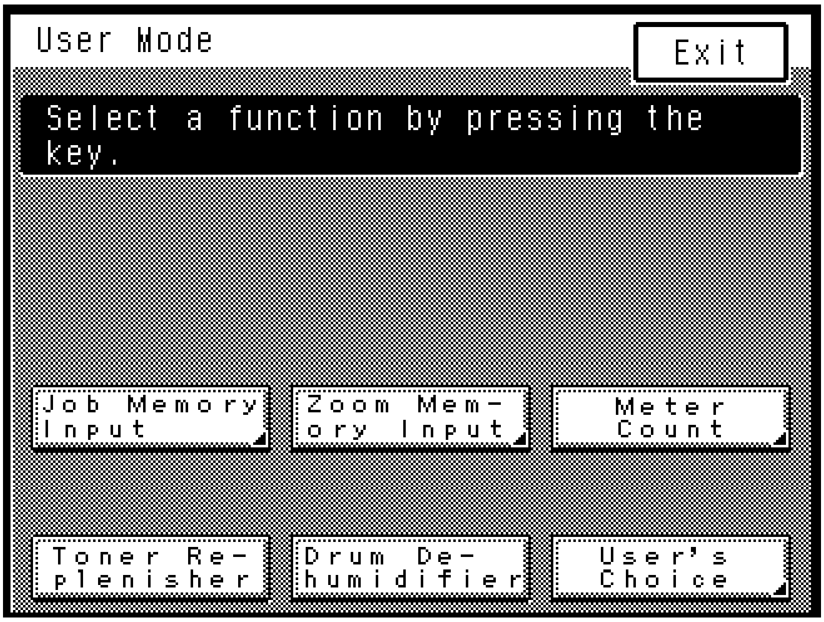
1149SBS0400A

4 USER'S CHOICE MODE

- The User's Choice mode available through the User Mode menu is used to make various settings according to the user's needs.

1149SBS0401A

4-1. User's Choice Selection Screen


User Mode
Exit
Select a function by pressing the key.
Job Memory Input
Zoom Memory Input
Meter Count
Toner Replenisher
Drum Dehumidifier
User's Choice

1149O262DA

1149SBS0402A

4-2. User's Choice Function Setting Procedure

<Setting Procedure>

1. Press the User Mode key on the control panel and then touch the "User's Choice" key.
2. Select the page number key that contains the desired function from among 1/6 through 6/6 shown at the bottom of the Touch Panel.
3. Select the function to be set and make settings as required.
4. After the settings are complete, touch the "Enter" key to validate the settings.

NOTE:
The function selected is highlighted.

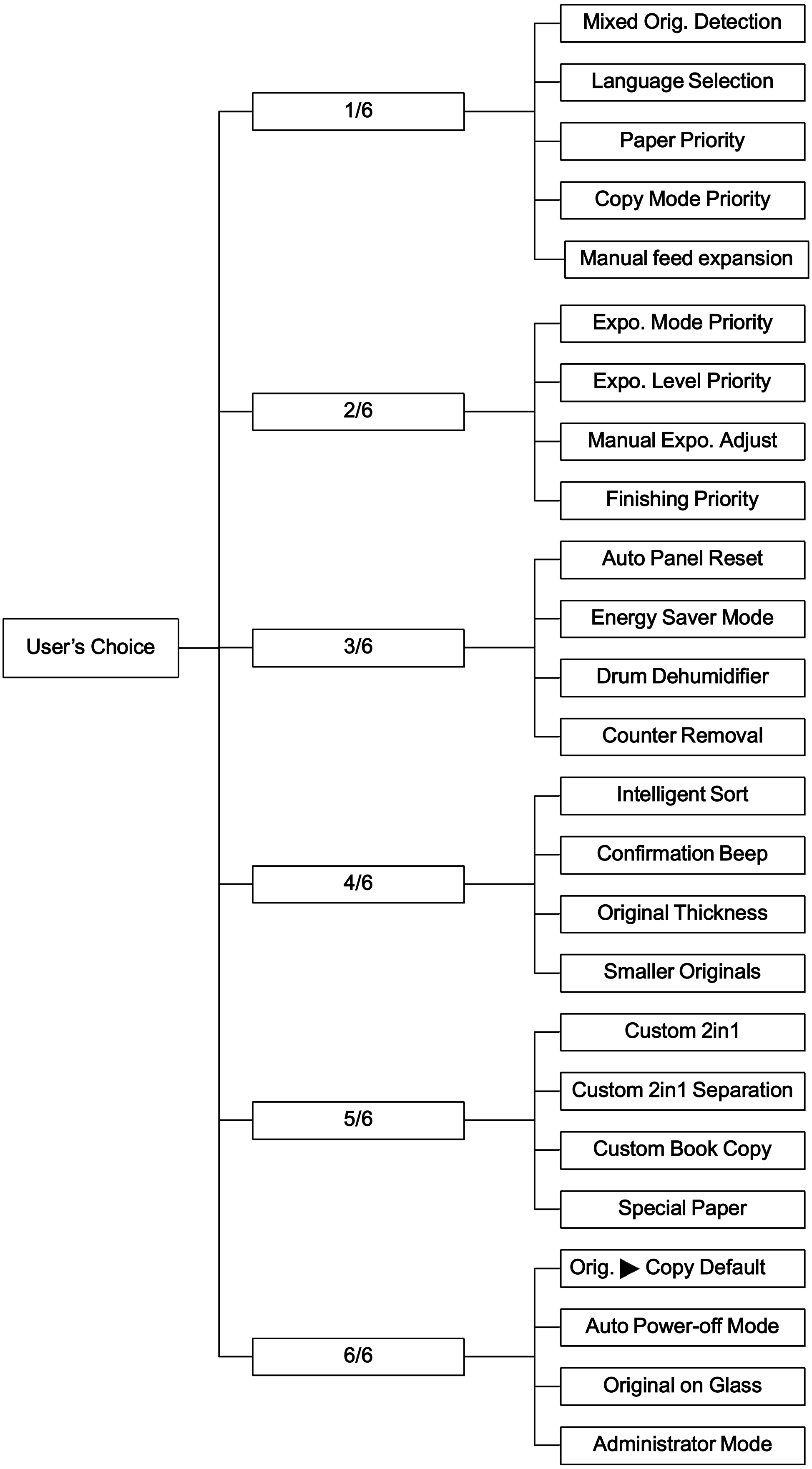
<Exiting the Mode>

Perform any one of the following steps to go back to the Basic screen.

- Press the Panel Reset key on the control panel.
- Touch "Exit" on the Touch Panel.

1156SBS0403A

4-3. User’s Choice Function Tree


User’s Choice
1/6
Mixed Orig. Detection
Language Selection
Paper Priority
Copy Mode Priority
Manual feed expansion
2/6
Expo. Mode Priority
Expo. Level Priority
Manual Expo. Adjust
Finishing Priority
3/6
Auto Panel Reset
Energy Saver Mode
Drum Dehumidifier
Counter Removal
4/6
Intelligent Sort
Confirmation Beep
Original Thickness
Smaller Originals
5/6
Custom 2in1
Custom 2in1 Separation
Custom Book Copy
Special Paper
6/6
Orig. ▶ Copy Default
Auto Power-off Mode
Original on Glass
Administrator Mode

1156SBS0404A

4-4. Settings in the User’s Choice

1161SBS040401A

[1/6]

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted.)</th></tr>
<tr><td>Mixed Orig. Detection</td><td>Select whether to enable (“ON”) the Mixed Original Detection mode or not (“OFF”) when power is turned ON or the Panel Reset key pressed.
<table><tr><td>ON</td><td>OFF</td></tr></table></td></tr>
<tr><td>Language Selection</td><td>Select the language of the Touch Panel messages.
–Metric Areas–
<table>
<tr><td>English</td><td>German</td><td>French</td></tr>
<tr><td>Dutch</td><td>Italian</td><td>Spanish</td></tr>
<tr><td>Portuguese</td><td>Danish</td><td>Norwegian</td></tr>
<tr><td>Swedish</td><td>Finnish</td><td>Greek</td></tr>
</table>
–Inch Areas–
<table>
<tr><td>English</td><td>German</td><td>French</td></tr>
<tr><td>Japanese</td><td>Chinese</td><td>Portuguese</td></tr>
</table></td></tr>
<tr><td>Paper Priority</td><td>Specify the paper source selected automatically.
<table>
<tr><td>1st Drawer</td></tr>
<tr><td>2nd Drawer</td></tr>
<tr><td>3rd Drawer</td></tr>
<tr><td>4th Drawer</td></tr>
<tr><td>LCT</td></tr>
</table></td></tr>
<tr><td>Copy Mode Priority</td><td>Specify the default mode selected automatically when power is turned ON or the Panel Reset key pressed.
<table><tr><td>Auto Paper</td><td>Auto Size</td><td>Manual</td></tr></table></td></tr>
<tr><td>Manual feed expansion</td><td>Select whether to use Manual feed expansion (“ON”) when using the Multi Bypass Tray or not (“OFF”)
<table><tr><td>ON</td><td>OFF</td></tr></table></td></tr>
</table>

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted .)</th></tr>
<tr><td>Expo. Mode Priority</td><td>Specify the default exposure mode selected automatically when power is turned ON or the Panel Reset key pressed.
<table><tr><td>Auto</td><td>Manual</td></tr></table>
</td></tr>
<tr><td>Expo. Level Priority</td><td>Auto: Select the default exposure level in the Auto Exposure mode.
Manual: Set the default exposure level in the Manual Exposure mode.
<Auto Exposure>
<table><tr><td>Lighter</td><td>Normal</td><td>Darker</td></tr></table>
<Manual Exposure>
◖ ☐ ☐ ☐ ☐ ■ ☐ ☐ ☐ ☐ ◗
<table><tr><td>Lighter</td><td>Normal</td><td>Darker</td></tr></table>
NOTE: EXP. 1 (Lighter) to EXP. 9 (Darker)
</td></tr>
<tr><td>Manual Expo. Adjust</td><td>Determine the default voltage curve (EXP. level) in the Manual Exposure mode, as optimized by the type of original.
<table>
<tr><td>Mode 1</td><td>Halftone images, photos</td></tr>
<tr><td>Mode 2</td><td>Ordinary originals</td></tr>
<tr><td>Mode 3</td><td>Originals with a colored background or faint texts</td></tr>
</table>
<Manual Exposure Voltages in Different Modes>
<table>
<tr><th colspan="10">Manual Exposure Voltage (V)</th></tr>
<tr><th>EXP.</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th></tr>
<tr><td>Mode 1</td><td>+8</td><td>+5</td><td>+2</td><td>+1</td><td>0</td><td>–1</td><td>–2</td><td>–5</td><td>–8</td></tr>
<tr><td>Mode 2</td><td>+8</td><td>+6</td><td>+4</td><td>+2</td><td>0</td><td>–2</td><td>–4</td><td>–6</td><td>–8</td></tr>
<tr><td>Mode 3</td><td>+8</td><td>+7</td><td>+6</td><td>+3</td><td>0</td><td>–3</td><td>–6</td><td>–7</td><td>–8</td></tr>
</table>
NOTE: EXP. 5 uses as reference the voltage value automatically adjusted by the F5 operation.
</td></tr>
<tr><td>Finishing Priority</td><td>Select the default finishing type when the copier is equipped with a Sorter or Staple Sorter.
<table>
<tr><td>Non Sort</td><td>Group</td></tr>
<tr><td>Sort</td><td>Sort Staple</td></tr>
</table>
+ <table><tr><td>Hole Punch</td></tr></table>
NOTE: Hole Punch can be combined with any one of the functions.
</td></tr>
</table>

1161SBS040403A

[3/6]

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted.)</th></tr>
<tr><td>Auto Panel Reset</td><td>Specify the default exposure mode selected automatically when power is turned ON or the Panel Reset key pressed.
<table>
<tr><td>30 sec.</td><td>1 min.</td><td>2 min.</td></tr>
<tr><td>3 min.</td><td>5 min.</td><td>No Reset</td></tr>
</table></td></tr>
<tr><td>Energy Saver Mode</td><td>Set the time it takes the copier to enter the Energy Saver mode after a copy cycle has been completed or the last key operated. Use the 10-Key Pad to set the time (1 to 240 min.).
<table>
<tr><td>1 to 240 (15 min.)</td><td>OFF</td></tr>
</table>
NOTE: The OFF setting is available for European areas only.</td></tr>
<tr><td>Drum Dehumidifier</td><td>Select whether to allow the copier to enter the Drum Dehumidifier mode automatically after it has been turned ON, or not.
<table>
<tr><td>ON</td><td>OFF</td></tr>
</table></td></tr>
<tr><td>Counter Removal</td><td>Select whether to reset the panel or not when the Plug-In Counter is pulled out of the copier, a magnetic card is pulled out of the Data Controller, or the Access Mode key is pressed.
<table>
<tr><td>ON</td><td>OFF</td></tr>
</table></td></tr>
</table>

1156SBS040404A

[4/6]

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted.)</th></tr>
<tr><td>Intelligent Sort</td><td>Select whether to turn “ON” or “OFF” the function that automatically switches between Sort and Non-Sort according to the number of originals loaded in the document feeder.
<table>
<tr><td>ON</td><td>OFF</td></tr>
</table>
NOTE: This function is enabled when “Mixed Orig. Detection” is turned “OFF” and the copier is in the Auto Paper or Auto Size mode.</td></tr>
<tr><td>Confirmation Beep</td><td>Select whether to turn “ON” or “OFF” the beep that sounds each time a key on the control panel is pressed or that on the Touch Panel is touched.
<table>
<tr><td>ON</td><td>OFF</td></tr>
</table></td></tr>
<tr><td>Original Thickness</td><td>Select whether to allow (“Thin”) the user to make copies from thin originals in addition to the standard ones or not (“Standard”) using the document feeder.
<table>
<tr><td>Standard</td><td>Thin</td></tr>
<tr><td>The orginal is pressed against the Original Width Scale when stopped.</td><td>The original is <u>not</u> pressed against the Original Width Scale when stopped.</td></tr>
</table></td></tr>
<tr><td>Smaller Originals</td><td>Select whether to enable (“ON”) a copy cycle or not (“OFF”) when it is initiated by pressing the Start key with an original of the smallest detectable size (metric areas: A5 or smaller; inch areas: Letter or smaller) placed on the Original Glass.
<table>
<tr><td>ON</td><td>OFF</td></tr>
<tr><td>The copy cycle is run using the paper loaded in the default paper source.</td><td>A warning message is given and the copier inhibits the start of this copy cycle.</td></tr>
</table>
NOTE: The default setting is OFF for the metric areas and ON for the inch areas.</td></tr>
</table>

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted .)</th></tr>
<tr><td>Custom 2in1</td><td>Make the settings for “Paper,” “Zoom,” “Margin,” and “Erase” that are automatically recalled when 2-in-1 copy is selected.
<table>
<tr><th>Function</th><th>Description</th><th>Initial Setting</th></tr>
<tr><td>Paper</td><td>Auto Paper, sizes of paper loaded in drawers</td><td>Auto Paper</td></tr>
<tr><td>Zoom</td><td>Auto Size, fixed zoom ratios</td><td>Metric areas: X0.707
Inch areas: X0.647</td></tr>
<tr><td>Margin</td><td>Position: Right edge, left edge, Top edge
Mode: Shift-for-Margin, Margin-by-Reduction
Width: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td><td>No margin</td></tr>
<tr><td rowspan="2">Erase</td><td>Position: Right Edge, Left Edge, Frame, Top Edge, Center, Frame+Center
Width: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td><td rowspan="2">No erase</td></tr>
<tr><td>Make the following selections only when Frame+Center is selected.
Frame: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”
Center: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td></tr>
</table>
NOTE: The erase width for the Top Edge is only 10mm for the metric areas and 1/2” for the inch areas.</td></tr>
<tr><td>Custom 2in1 Separation</td><td>Make the settings for “Paper,” “Zoom,” “Margin,” and “Erase” that are automatically recalled when 2-in-1 separation copy is selected.
<table>
<tr><th>Function</th><th>Description</th><th>Initial Setting</th></tr>
<tr><td>Paper</td><td>Auto Paper, sizes of paper loaded in drawers</td><td>1st Drawer</td></tr>
<tr><td>Zoom</td><td>Auto Size, fixed zoom ratios</td><td>Metric areas: X1.414
Inch areas: X1.294</td></tr>
<tr><td>Margin</td><td>Position: Right edge, left edge
Mode: Shift-for-Margin, Margin-by-Reduction
Width: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td><td>No margin</td></tr>
<tr><td rowspan="2">Erase</td><td>Position: Right Edge, Left Edge, Frame, Top Edge, Center, Frame+Center
Width: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td><td rowspan="2">No erase</td></tr>
<tr><td>Make the following selections only when Frame+Center is selected.
Frame: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”
Center: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td></tr>
</table>
NOTE: The erase width for the Top Edge is only 10mm for the metric areas and 1/2” for the inch areas.</td></tr>
</table>

[5/6]

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted .)</th></tr>
<tr><td>Custom Book Copy</td><td>Make the settings for “Paper,” “Zoom,” “Margin,” and “Erase” that are automatically recalled when Book copy is selected.
<table>
<tr><th>Function</th><th>Description</th><th>Initial Setting</th></tr>
<tr><td>Paper</td><td>Sizes of paper loaded in drawers</td><td>Metric areas: None
Inch areas: 3rd Drawer</td></tr>
<tr><td>Zoom</td><td>Fixed zoom ratios</td><td>X1.000</td></tr>
<tr><td>Margin</td><td>Position: Right edge, left edge
Mode: Shift-for-Margin, Margin-by-Reduction
Width: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td><td>No margin</td></tr>
<tr><td rowspan="2">Erase</td><td>Position: Right Edge, Left Edge, Frame, Top Edge, Center, Frame+Center
Width: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td><td rowspan="2">No erase</td></tr>
<tr><td>Make the following selections only when Frame+Center is selected.
Frame: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”
Center: Metric areas – 5, 10, 15, 20 mm
Inch areas – 1/4, 1/2, 3/4, 1”</td></tr>
</table>
NOTE: The erase width for the Top Edge is only 10mm for the metric areas and 1/2” for the inch areas.</td></tr>
<tr><td>Special Paper</td><td>Set up a drawer for special paper loading.
<table>
<tr><td>Normal</td><td>Insert Sheet</td></tr>
<tr><td>Recycled</td><td>Not for 2-Sided</td></tr>
</table>
Initial setting: Normal (for all drawers)
<table>
<tr><th>Type of Paper</th><th>Auto Paper</th><th>Automatic Drawer Switching (only of paper of the same type)</th></tr>
<tr><td>Normal</td><td>○</td><td>○</td></tr>
<tr><td>Recycled</td><td>○ NOTE 1</td><td>○</td></tr>
<tr><td>Insert Sheet</td><td>—</td><td>—</td></tr>
<tr><td>Not for 2-Sided</td><td>○ NOTE 2</td><td>○ NOTE 2</td></tr>
</table>
○: Enabled —: Disabled
NOTE 1: A warning display is given and the copy cycle is started by pressing the Start key.
NOTE 2: Enabled only in the 1-sided copying mode.</td></tr>
</table>

[6/6]

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted .)</th></tr>
<tr><td>Orig. ▶ Copy Default</td><td>Select the type of Orig. ▶ Copy setting selected automatically when the copier is turned ON or Panel Reset key pressed. If ”Duplex only” is selected for “Simplex/Duplex” of the “Tech. Rep. Choice” function, neither 1 ▶ 1 nor 1 ▶ 2in1 are displayed.
<table>
<tr><td>1 ▶ 1</td><td>1 ▶ 2 in1</td><td></td></tr>
<tr><td>1 ▶ 2</td><td>1 ▶ 2-2 in1</td><td>2 ▶ 2</td></tr>
</table>
NOTE: Some of the functions may not be displayed depending on the type of options the copier is equipped with.</td></tr>
<tr><td>Auto Power-off Mode</td><td>Select whether to turn ON or OFF the Auto Shut Off function that shuts down the copier a given period of time after a copy cycle has been completed or the last key operated.
Selecting “ON” means setting the time it takes the Auto Shut Off function to be activated, that can range from 1 min. to 240 min.
<table>
<tr><td>OFF</td><td>1 to 240 (90 min.)</td></tr>
</table>
NOTE: “OFF” is displayed when “Enable” is selected for “Non-Auto Shut off” of the “Administrator Mode” function.</td></tr>
<tr><td>Original on Glass</td><td>Select whether to turn “ON” or “OFF” the beep that sounds when you attempt to load an original in the document feeder with another one left on the glass.
<table>
<tr><td>Beep ON</td><td>Beep OFF</td></tr>
</table></td></tr>
<tr><td>Administrator Mode</td><td>Entry of the “Administrator #” set using the Tech. Rep. mode permits the setting of the following functions.</td></tr>
<tr><td>Copy Track</td><td>Select the number of accounts to be controlled.
<table>
<tr><td>OFF</td><td>100 Accounts</td><td>1000 Accounts</td></tr>
</table></td></tr>
<tr><td>Copy Track</td><td>This function is displayed when the above “Copy Track” setting is changed, prompting you to select whether to initialize (“YES”) the copy track data so far taken or not (“NO”)
<table>
<tr><td>YES (initialize)</td><td>NO (do not initialize)</td></tr>
</table></td></tr>
<tr><td>Copy Track Data</td><td>When “Count Reset” is touched, it clears all data under control.</td></tr>
</table>

[6/6]

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted .)</th></tr>
<tr><td>1/25
·
·
·
22/25</td><td><100 Accounts>
The copy track data of the selected page is displayed (Account No., Total Counter, Size Counter, Limit, ID).
“Count Reset” : Clears the total and size counters of all accounts.
“No.” : Enter the set account number from the 10–Key Pad.
“Total” : Displays the count of the Total Counter. (It can also be cleared with the Clear key.)
“Size” : Displays the count of the Size Counter. (It can also be cleared with the Clear key.)
“Limit” : Enter the maximum number of copies that can be made from the 10-Key Pad.
“ID #” : Enter the access number (0001 to 9999) from the 10-Key Pad.</td></tr>
<tr><td>1~
·
·
·
901~</td><td><1000 Accounts>
The copy track data of the selected page is displayed.
“Count Reset” : Clears the total counters of all accounts.
“Total” : Displays the count of the Total Counter. (It can also be cleared with the Clear key.)
NOTE: The entry of an access number is not possible, with 1 to 1000 corresponding to the ID numbers.</td></tr>
<tr><td>Max. Copy Sets</td><td>Determine the number of copies or copy sets that can be set using the 10-Key Pad.</td></tr>
<tr><td>Non-Auto Shut off</td><td>Select whether to enable or disable the Auto Power-off Mode setting available from User’s Choice.
<table>
<tr><td>Disable</td><td>“OFF” key is not displayed.</td></tr>
<tr><td>Enable</td><td>“OFF” key is displayed.</td></tr>
</table></td></tr>
<tr><td>User Help
* Displayed when a DT-103 is mounted.</td><td><Transmission Procedure>
1. Using the “ ▼ or ▲ ” key, select the user claim number and then, from the 10-Key Pad, enter the 3-digit user claim code (up to six entries are possible).
2. Touch “Data Send” to start the transmission.</td></tr>
</table>

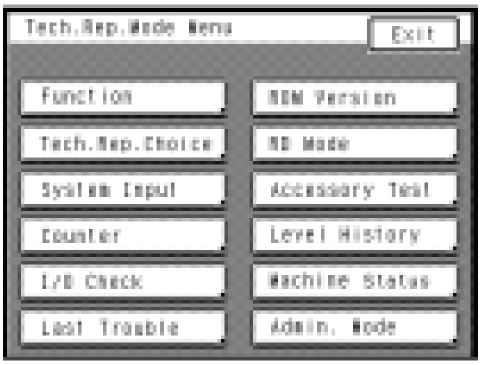
1149SBS0500A

5 TECH. REP. MODE

- This mode is used by the Tech. Rep. to set, check, adjust, and/or program various service functions.

1149SBS0501A

5-1. Tech. Rep. Mode Menu Screen


Tech.Rep.Mode Menu
Exit
Function
ROM Version
Tech.Rep.Choice
RD Mode
System Input
Accessory Test
Counter
Level History
I/O Check
Machine Status
Last Trouble
Admin. Mode

1149O423CB

1149SBS0502A

5-2. Tech. Rep. Mode Function Setting Procedure

<Setting Procedure>

1. Set the copier into the Tech. Rep. mode by pressing the following keys in this order.

Stop key ➧ 0 ➧ Stop key ➧ 1

2. Select the particular Tech. Rep. mode function to be set.
3. Make the necessary settings by following the instructions given sequentially on the screen.

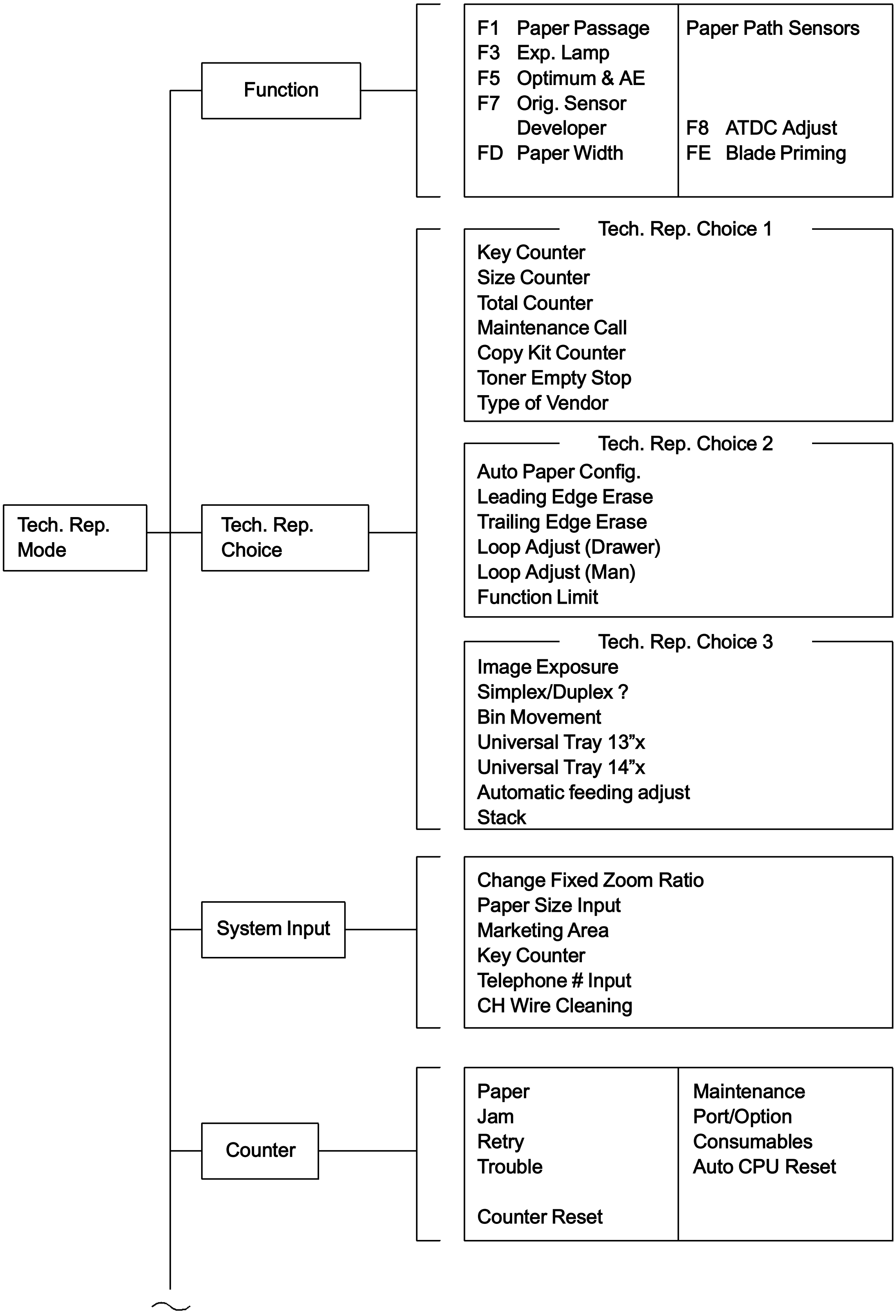
NOTE: The function selected is highlighted.

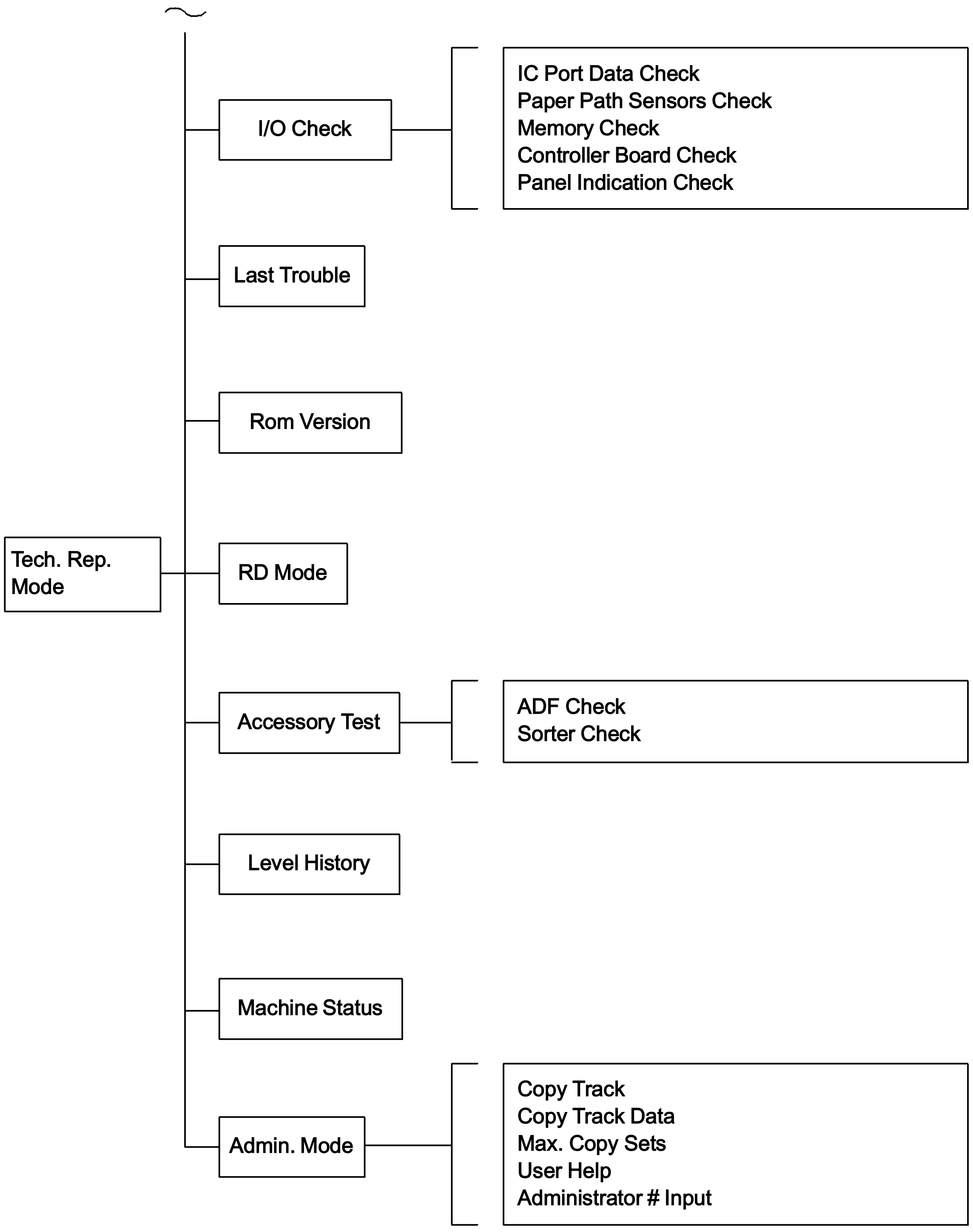
<Exiting the Mode>

- Press the Panel Reset key on the control panel.

1161SBS0503A

5-3. Tech. Rep. Mode Function Tree


Tech. Rep. Mode
Function
F1 Paper Passage
F3 Exp. Lamp
F5 Optimum & AE
F7 Orig. Sensor
Developer
FD Paper Width
Paper Path Sensors
F8 ATDC Adjust
FE Blade Priming
Tech. Rep. Choice
Tech. Rep. Choice 1
Key Counter
Size Counter
Total Counter
Maintenance Call
Copy Kit Counter
Toner Empty Stop
Type of Vendor
Tech. Rep. Choice 2
Auto Paper Config.
Leading Edge Erase
Trailing Edge Erase
Loop Adjust (Drawer)
Loop Adjust (Man)
Function Limit
Tech. Rep. Choice 3
Image Exposure
Simplex/Duplex ?
Bin Movement
Universal Tray 13”x
Universal Tray 14”x
Automatic feeding adjust
Stack
System Input
Change Fixed Zoom Ratio
Paper Size Input
Marketing Area
Key Counter
Telephone # Input
CH Wire Cleaning
Counter
Paper
Jam
Retry
Trouble
Counter Reset
Maintenance
Port/Option
Consumables
Auto CPU Reset


Tech. Rep. Mode
I/O Check
IC Port Data Check
Paper Path Sensors Check
Memory Check
Controller Board Check
Panel Indication Check
Last Trouble
Rom Version
RD Mode
Accessory Test
ADF Check
Sorter Check
Level History
Machine Status
Admin. Mode
Copy Track
Copy Track Data
Max. Copy Sets
User Help
Administrator # Input

1149SBS0504A

5-4. Settings in the Tech. Rep. Mode

1161SBS050401A

1. Function

- This function allows the Tech. Rep. to make the various functional tests and adjustments.

<Setting Procedure>

1. Select the particular function to be run.
2. Press the Start key to start the test.
3. Press the Stop key to stop the test.

Tech. Rep. Mode ▶ Function

Touch Panel Display	Operation
F1 Paper Passage	A paper passage test is carried out to check for correct sensor operation without having to wait for the copier to complete warming up. <Procedure> 1. Before entering the Tech. Rep. Mode, select the paper feed source, then touch "Paper Path Sensors." 2. Press the Start key. This starts a paper take-up and feeding sequence and the copier shows "1" or "0" depending on the condition of each sensor. NOTE: Pressing the Stop key causes the copier to feed the paper out and stop operating; another press of the Start key will resume the paper take-up and feeding sequence.
F3 Exp. Lamp	Checks to see if the Exposure Lamp lights up properly. (It runs for 30 sec.)
F5 Optimum & AE	Makes the following automatic adjustments: Vg level, Manual exposure level and AE Sensor optimum exposure level. (It runs for 30 sec.) <Procedure> 1. Touching "F5" automatically brings you to the next screen (AE level adjustment screen). 2. Using the ◀ or ▶ key, show the desired number (44 to 56) and press the Start key. This starts the automatic adjustment sequence. 3. Touch "Test Copy" to check the image.
F7 Orig. Sensor	Makes an automatic adjustment of the Original Size Detecting Sensors.
Developer	When "Developer" is pressed, "F8" functions are displayed and disappear when the corresponding operation has been completed.
F8 ATDC Adjust	Runs the Developing Unit to agitate developer and makes an automatic adjustment of the ATDC Sensor level. (It runs for 5 min.)
FD Paper Width	Automatically adjusts the paper reference position of the Manual Bypass Table and Universal Tray. NOTE: For details, see DIS/REASSEMBLY, ADJUSTMENT.
FE Blade Priming	After toner has been applied to the surface of the PC Drum upon setting–up or when the PC Drum or Cleaning Blade is replaced, this operation is run to prime the Cleaning Blade for a snug contact with the PC Drum, thereby preventing the Cleaning Blade from becoming warped. NOTE: For details, see DIS/REASSEMBLY, ADJUSTMENT.

1161SBS050402A

2. Tech. Rep. Choice

- This function allows the Tech. Rep. to make various settings and adjustments.

Tech. Rep. Mode ▶ Tech. Rep. Choice

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Key Counter</td><td>Select the condition by which the Key Counter count is increased.
<table><tr><td># of Sheets</td><td>Copy Cycle</td></tr></table>
NOTE: See the Count-up Table for details.</td></tr>
<tr><td>Size Counter</td><td>Select the size of the paper to be counted by the Size Counter.
Metric Areas
<table><tr><td>No Count</td><td>A3</td></tr><tr><td>A3/B4</td><td>A3/B4/FLS</td></tr></table>
Inch Areas
<table><tr><td>No Count</td><td>11X17</td></tr><tr><td>11X17/LGR</td><td>11X17/11X14</td></tr></table>
NOTE: See the Count-up Table for details.</td></tr>
<tr><td>Total Counter</td><td>Select the conditions (paper size and 2-sided copying) by which the Total Counter count is increased.
<table>
<tr><td>Mode 0</td><td>1 count per 1 copy cycle</td></tr>
<tr><td>Mode 1</td><td>Multiple count-up according to paper size and 2-sided copying</td></tr>
<tr><td>Mode 2</td><td>Multiple count-up according to paper size and 2-sided copying</td></tr>
</table>
NOTE: See the Count-up Table for details.
<Count-up Table>
<table>
<tr><td colspan="2">Copying</td><td colspan="6">1-Sided</td><td colspan="6">2-Sided</td><td colspan="3" rowspan="2">Manual Bypass</td></tr>
<tr><td colspan="2">Size</td><td colspan="3">Sizes other than those set</td><td colspan="3">Set sizes</td><td colspan="3">Sizes other than those set</td><td colspan="3">Set sizes</td></tr>
<tr><td colspan="2" rowspan="2">Total</td><td colspan="3">Mode</td><td colspan="3">Mode</td><td colspan="3">Mode</td><td colspan="3">Mode</td><td colspan="3">Mode</td></tr>
<tr><td>0</td><td>1</td><td>2</td><td>0</td><td>1</td><td>2</td><td>0</td><td>1</td><td>2</td><td>0</td><td>1</td><td>2</td><td>0</td><td>1</td><td>2</td></tr>
<tr><td colspan="2">Total (mechanical, electronic)</td><td colspan="3">1</td><td>1</td><td>2</td><td>2</td><td colspan="3">2</td><td>2</td><td>4</td><td>4</td><td colspan="3">1</td></tr>
<tr><td colspan="2">Size (electronic)</td><td colspan="3">0</td><td>1</td><td>1</td><td>2</td><td colspan="3">0</td><td>2</td><td>2</td><td>0</td><td colspan="3">0</td></tr>
<tr><td colspan="2">2-Sided Total (electronic)</td><td colspan="3">0</td><td colspan="3">0</td><td>1</td><td>1</td><td>2</td><td>1</td><td>1</td><td>4</td><td colspan="3">0</td></tr>
<tr><td colspan="2">2-Sided Size (electronic)</td><td colspan="3">0</td><td colspan="3">0</td><td colspan="3">0</td><td>1</td><td>1</td><td>4</td><td colspan="3">0</td></tr>
<tr><td rowspan="2">Key (mechanical)</td><td>Counting copies</td><td colspan="3">1</td><td>1</td><td>2</td><td>2</td><td>1</td><td>2</td><td>2</td><td>1</td><td>4</td><td>4</td><td colspan="3">1</td></tr>
<tr><td>Counting copy cycles</td><td colspan="3">1</td><td>1</td><td>2</td><td>2</td><td colspan="3">2</td><td>2</td><td>4</td><td>4</td><td colspan="3">1</td></tr>
</table>
0: No count 1: 1 count 2: 2 counts 4: 4 counts</td></tr>
</table>

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Maintenance Call</td><td>Select whether to enable or disable the maintenance call reminder message that is displayed when the maintenance counter count reaches the preset value.
<table><tr><td>NO</td><td>YES</td></tr></table>
NOTE: Up to five maintenance counters may be set and the maintenance call reminder message is given when the count of any one of these five counters reaches the preset value, together with the display of maintenance code "M1."</td></tr>
<tr><td>Copy Kit Counter</td><td>Select whether to enable or disable the "Copy Kit" counter; if the counter is to be enabled, select whether to allow or inhibit the start of a copy cycle when the count reaches the preset value.
<table>
<tr><td>NO</td><td>Disables the Copy Kit counter.</td></tr>
<tr><td>Mode 1</td><td>Copying not inhibited after the count reaches the preset value.</td></tr>
<tr><td>Mode 2</td><td>Copying inhibited after the count reaches the preset value.</td></tr>
</table>
NOTE: The Copy Kit counter is enabled by selecting mode 1 or 2. When the count reaches the preset value, the maintenance code "M4" is displayed.</td></tr>
<tr><td>Toner Empty Stop</td><td>Select whether or not to inhibit copying when a toner-empty condition is detected.
<table><tr><td>Enable Copy</td><td>Disable Copy</td></tr></table>
NOTE: When "Disable Copy" is selected, copying is inhibited when a T/C of 2.5% or less is detected.</td></tr>
<tr><td>Type of Vendor</td><td>Make the display setting according to the type of optional vendor mounted on the copier. (Japan only)
<table>
<tr><td>Key Counter</td><td>Disables the Copy Kit counter.</td></tr>
<tr><td>Coin Vendor</td><td>—</td></tr>
<tr><td>Card Vendor</td><td>—</td></tr>
</table>
NOTE: Select "Key Counter." No other setting should be made.</td></tr>
<tr><td>Auto Paper Config.</td><td>Select either "Inch/Metric" or "Metric" for rounding off the original size detected.
<table>
<tr><td>Inch/Metric</td><td>The measurement is rounded to the nearest standard inch or metric size.</td></tr>
<tr><td>Metric</td><td>The measurement is rounded to the nearest standard metric size.</td></tr>
</table></td></tr>
</table>

Tech. Rep. Mode ▶ Tech. Rep. Choice

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Leading Edge Erase</td><td>Select whether to enable (“Yes”) or disable (“No”) the leading edge erase.
<table><tr><td>NO</td><td>YES</td></tr></table>
</td></tr>
<tr><td>Trailing Edge Erase</td><td>Select whether to enable (“Yes”) or disable (“No”) the trailing edge erase.
<table><tr><td>NO</td><td>YES</td></tr></table>
</td></tr>
<tr><td>Loop Adjust (Drawer)</td><td>Adjust the length of the loop before the Synchronizing Rollers to be formed in paper fed from the copier drawer.
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>47</td><td>Loop length approx. 1 mm</td><td>51</td><td>Loop length approx. 9 mm</td></tr>
<tr><td>48</td><td>Loop length approx. 3 mm</td><td>52</td><td>Loop length approx. 11 mm</td></tr>
<tr><td>49</td><td>Loop length approx. 5 mm</td><td>53</td><td>Loop length approx. 13 mm</td></tr>
<tr><td>50</td><td>Loop length approx. 7 mm</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Loop Adjust (Man)</td><td>Adjust the length of the loop before the Synchronizing Rollers to be formed in paper fed via the Multi Bypass Tray or a paper feeder option.
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>47</td><td>Loop length approx. 1 mm</td><td>51</td><td>Loop length approx. 9 mm</td></tr>
<tr><td>48</td><td>Loop length approx. 3 mm</td><td>52</td><td>Loop length approx. 11 mm</td></tr>
<tr><td>49</td><td>Loop length approx. 5 mm</td><td>53</td><td>Loop length approx. 13 mm</td></tr>
<tr><td>50</td><td>Loop length approx. 7 mm</td><td></td><td></td></tr>
</table>
</td></tr>
<tr><td>Function Limit</td><td>Select whether to limit (“ON”) the functions that can be set on the control panel or not (“OFF”).
<table>
<tr><td>ON</td><td>Functions that can be set are limited to the number of copies to be made, paper size, zoom ratio, and exposure level only.</td></tr>
<tr><td>OFF</td><td>All functions can be set.</td></tr>
</table>
</td></tr>
</table>

Tech. Rep. Mode ▶ Tech. Rep. Choice

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Image Exposure</td><td>Vary the Vg voltage to set the desired image density.
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>47</td><td>Vg –90V</td><td>51</td><td>Vg +30V</td></tr>
<tr><td>48</td><td>Vg –60V</td><td>52</td><td>Vg +60V</td></tr>
<tr><td>49</td><td>Vg –30V</td><td>53</td><td>Vg +90V</td></tr>
<tr><td>50</td><td>Vg ± 0V</td><td>54</td><td>Vg +120V</td></tr>
</table></td></tr>
<tr><td>Simplex/Duplex?</td><td>Select the copying mode types that can be selected in “Orig. ▶ Copy Default” of User’s Choice.
<table>
<tr><td>Both</td><td>Permits selection of all copying modes.</td></tr>
<tr><td>Duplex only</td><td>Permits selection of 2-sided copying modes only.</td></tr>
</table></td></tr>
<tr><td>Bin Movement</td><td>Select whether or not the Sort Bins will automatically move upward after the last copy is ejected into the Bins.
<table>
<tr><td>ON</td><td>After the last copy, the Sort Bins automatically move upward.</td></tr>
<tr><td>OFF</td><td>After the last copy, the Sort Bins do not move upward.</td></tr>
</table></td></tr>
<tr><td>Universal Tray 13”x</td><td>Set the inch size of paper to be used in the Universal Tray.
<table>
<tr><td>8½”</td><td>8¼”</td><td>8”</td></tr>
</table></td></tr>
<tr><td>Universal Tray 14”x</td><td>Set the inch size of paper to be used in the Universal Tray.
<table>
<tr><td>8½”</td><td>8¼”</td></tr>
</table></td></tr>
<tr><td>Automatic feeding adjust</td><td>– When an AFR–1000 is mounted –
Select whether or not to automatically resume the copy cycle with all documents ejected after a misfeed which occurred in the copier has been cleared.

– When an AFR–13 is mounted –
Select whether or not to display a message that prompts the operator to return all documents when a misfeed occurs in the copier.
<table>
<tr><td>YES</td><td>NO</td></tr>
</table></td></tr>
<tr><td>Stack</td><td>Select whether or not the Sorter automatically stacks the copy sets after the last copy is ejected into the Sort Bins when there are 20 or fewer copy sets made in non-staple mode.
<table>
<tr><td>Mode 1</td><td>The copy sets are not stacked.</td></tr>
<tr><td>Mode 2</td><td>The copy sets are stacked.</td></tr>
</table></td></tr>
</table>

1161SBS050403A

3. System Input

- This function allows the Tech. Rep. to change the fixed zoom ratios, set the paper size, define the marketing area, configure for the Key Counter, and input the telephone number.

Tech. Rep. Mode ▶ System Input

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Change Fixed Zoom Ratio</td><td>Change a fixed zoom ratio to a desired value in the range between X0.500 and X2.000.
<Procedure>
1. Select the fixed zoom ratio to be changed and clear the setting by pressing the Clear key.
Note: If a ratio is mistakenly cleared, pressing the Panel Reset key will recover the ratio.
2. Enter the new zoom ratio from the 10-Key Pad.
3. Touch “Enter” to validate the new setting.</td></tr>
<tr><td>Paper Size Input</td><td>Set the size of the paper used in each paper source.
<Procedure>
1. Select the paper source for which the paper size is to be set (on the Paper Size Input 1/2 screen).
2. Then, the Paper Size Input 2/2 screen appears. Using the ▲ or ▼ key, select the paper size.
3. Touch “Enter” to validate the paper size setting.</td></tr>
<tr><td>Marketing Area</td><td>Select the marketing area to set the paper size and fixed zoom ratios.<table><tr><td>MJ</td><td>MC</td><td>MH</td><td>Other Areas</td></tr></table>Note: Be sure to initialize the copier after the marketing area has been selected.</td></tr>
<tr><td>Key Counter</td><td>Select whether or not to inhibit copying if a Key Counter is not inserted when the copier is equipped with a Key Counter.<table><tr><td>ON</td><td>Inhibits copying if the Key Counter is not inserted.</td></tr><tr><td>OFF</td><td>Permits copying even if the Key Counter is not inserted.</td></tr></table>Note: Be sure to select “ON” when the copier is equipped with a Key Counter.</td></tr>
<tr><td>Telephone # Input</td><td>Input the telephone number that will appear on the Touch Panel when a malfunction occurs in the copier.
<Procedure>
1. Enter the phone number (consisting of up to 19 digits) from the 10-Key Pad.
Note: Use the Interrupt key to enter a hyphen “–.”
2. Touch “OK” to validate the phone number setting.</td></tr>
<tr><td>CH Wire cleaning</td><td>Select whether or not to run an automatic cleaning sequence of each corona wire when the Power Switch is turned ON.<table><tr><td>OFF</td><td>ON</td></tr></table></td></tr>
</table>

1161SBS050404A

4. Counter

- This function shows the counts of the various counters, thus aiding the Tech. Rep. in performing service jobs.

<Setting Procedure>

1. Select “Counter”.
2. Select the desired counter function.
3. Clear or set the count according to the instructions given on the screen.

<Clearing All Counts of a Counter Type at Once>

1. Touch the “Counter Reset” key.
2. Select the type of counter to be cleared all at once.
3. Touch “Enter”. This clears all counts of the counter selected.

Tech. Rep. Mode ▶ Counter

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Paper</td><td>
Shows the number of copies made on each paper size or type (S0: standard paper; S1: recycled paper; S2: special paper; S3: disabled 2-sided copying).
<Paper 1/2>
<table>
<tr><th colspan="2">Paper Size</th></tr>
<tr><td>A3</td><td>11 X 17</td></tr>
<tr><td>B4</td><td>11 X 14</td></tr>
<tr><td>A4</td><td>Legal</td></tr>
<tr><td>B5</td><td>Letter</td></tr>
<tr><td>A5</td><td>5½X8½</td></tr>
<tr><td></td><td>FLS</td></tr>
</table>
<Paper 2/2>
<table>
<tr><th>Paper Type</th></tr>
<tr><td>S0</td></tr>
<tr><td>S1</td></tr>
<tr><td>S2</td></tr>
<tr><td>S3</td></tr>
</table>
Note: For a paper size that can be loaded both lengthwise and crosswise, the count represents the sum of both. (Ex.: A4 lengthwise/crosswise)
<Clearing a Count>
Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key.
Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.
</td></tr>
</table>

Tech. Rep. Mode ▶ Counter

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Jam</td><td>
Shows the number of misfeeds that have occurred in different parts of the copier system including MCBJ (system, copier only, ADF).

<Jam Counter 1/3>

<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>MCBJ (System)</td><td>Misfeed occurrence rate of the entire system</td><td>1st Drawer</td><td>No. of misfeeds that occurred at the 1st Drawer of the copier</td></tr>
<tr><td>MCBJ (Machine Only)</td><td>Misfeed occurrence rate of the copier only</td><td>2nd Drawer</td><td>No. of misfeeds that occured at the 2nd Drawer of the copier</td></tr>
<tr><td>MCBJ (ADF)</td><td>Misfeed occurrence rate of the ADF only</td><td>3rd Drawer</td><td>No. of misfeeds that occurred at the 3rd Drawer of the copier</td></tr>
<tr><td>Manual Feed</td><td>No. of misfeeds that occurred at the Multi Bypass Tray</td><td>4th Drawer</td><td>No. of misfeeds that occurred at the 4th Drawer of the copier</td></tr>
</table>

Note 1: MCBJ (System) : Total Counter value divided by the sum of Jam Counter values
MCBJ (Machine Only) : Total Counter value divided by the sum of copier Jam Counter values
MCBJ (ADF) : No. of originals fed through the ADF divided by the sum of ADF Jams.
Note 2: A minus sign “–” is appended when the denominator is “0” for each MCBJ.

<Jam Counter 2/3>

<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>5th Drawer</td><td>———</td><td>Dup Entrance</td><td>No. of misfeeds that occurred at the entrance of the Duplex Unit</td></tr>
<tr><td>Vertical Trans.</td><td>No. of misfeeds that occurred at the transport section of the copier</td><td>Dup Exit</td><td>No. of misfeeds that occurred at the paper take-up section of the Duplex Unit</td></tr>
<tr><td>Horizontal Trans.</td><td>No. of misfeeds that occurred at the paper separator section of the copier</td><td>Sorter</td><td>No. of misfeeds that occurred at the finishing option</td></tr>
<tr><td>Exit Section</td><td>No. of misfeeds that occurred at the exit section of the copier</td><td>ADF Feed</td><td>No. of misfeeds that occurred at the document take-up section of the ADF</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Jam</td><td>
<Jam Counter 3/3>
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>ADF Transport</td><td>No. of misfeeds that occurred at the transport section of the ADF</td><td>SADF Feed</td><td>No. of misfeeds that occurred at the SADF</td></tr>
<tr><td>ADF Reverse</td><td>No. of misfeeds that occurred at the turnover section of the ADF</td><td>LCT</td><td>No. of misfeeds that occurred at the LCT</td></tr>
<tr><td>ADF Exit</td><td>No. of misfeeds that occurred at the exit section of the ADF</td><td>Stack</td><td>No. of misfeeds that occurred at the sorter stacker</td></tr>
</table>
<Clearing a Count>
Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key.
Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.
</td></tr>
<tr><td>Retry</td><td>
Shows the number of paper take-up retries carried out at different paper sources.
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>1st Drawer</td><td>No. of paper take-up retries at the 1st Drawer of the copier</td><td>5th Drawer</td><td>———</td></tr>
<tr><td>2nd Drawer</td><td>No. of paper take-up retries at the 2nd Drawer of the copier</td><td>Dup</td><td>No. of paper take-up retries at the Duplex Unit</td></tr>
<tr><td>3rd Drawer</td><td>No. of paper take-up retries at the 3rd Drawer of the copier</td><td>Manual Feed</td><td>No. of paper take-up retries at the Multi By-pass Tray</td></tr>
<tr><td>4th Drawer</td><td>No. of paper take-up retries at the 4th Drawer of the copier</td><td>LCT</td><td>No. of paper take-up retries at the LCT</td></tr>
</table>
<Clearing a Count>
Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key.
Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.
</td></tr>
<tr><td>Trouble</td><td>
Shows the number of malfunctions that have occurred in different parts of the copier system.
<Trouble Counter 1/7>
<table>
<tr><th>Malfunction Code</th><th>Location</th><th>Malfunction Code</th><th>Location</th></tr>
<tr><td>C000X</td><td>Fuser Unit Drive Motor</td><td>C0042/3</td><td>Toner Suction Fan</td></tr>
<tr><td>C001X</td><td>PC Drum Drive Motor</td><td>C0046/7</td><td>Fusing Cooling Fan</td></tr>
<tr><td>C002X</td><td>Feeding Motor</td><td>C004A/b</td><td>Optical Cooling Fan</td></tr>
<tr><td>C0040</td><td>Suction Fan Motor</td><td>C004C/d</td><td>Ventilation Fan</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Trouble</td><td>
<Trouble 2/7>
<table>
<tr><th>Malfunction Code</th><th>Location</th><th>Malfunction Code</th><th>Location</th></tr>
<tr><td>C004E/F</td><td>Power Supply Fan</td><td>C0110</td><td>Trans. Wire Cleaning</td></tr>
<tr><td>C0070/1</td><td>Main Hopper Motor</td><td>C0200</td><td>PC Charge Corona</td></tr>
<tr><td>C0072</td><td>Sub Hopper Motor</td><td>C0210</td><td>Trans. Corona</td></tr>
<tr><td>C0100</td><td>CH Wire Cleaning</td><td>C03XX</td><td>Control Board/Harness</td></tr>
</table>
<Trouble 3/7>
<table>
<tr><th>Malfunction Code</th><th>Location</th><th>Malfunction Code</th><th>Location</th></tr>
<tr><td>C04XX</td><td>Exposure Lamp</td><td>C0540</td><td>No Connectes Thermistor</td></tr>
<tr><td>C050X</td><td>Fuser Warm-Up</td><td></td><td></td></tr>
<tr><td>C051X</td><td>Fuser Low Temp.</td><td>C060X</td><td>Scanner Drive Syst.</td></tr>
<tr><td>C052X</td><td>Fuser High Temp.</td><td>C061X</td><td>Lens Drive System</td></tr>
<tr><td></td><td></td><td>C0650</td><td>Scanner Sensor</td></tr>
</table>
<Trouble 4/7>
<table>
<tr><th>Malfunction Code</th><th>Location</th><th>Malfunction Code</th><th>Location</th></tr>
<tr><td>C0660</td><td>Scanner System</td><td>C091X</td><td>2nd Drawer</td></tr>
<tr><td>C06FX</td><td>Scanner Interface</td><td>C092X</td><td>1st Drawer</td></tr>
<tr><td>C07XX</td><td>ADF</td><td>C095X</td><td>4th Drawer</td></tr>
<tr><td>C090X</td><td>3rd Drawer</td><td>C0990-6</td><td>LCC Main-Tray</td></tr>
</table>
<Trouble 5/7>
<table>
<tr><th>Malfunction Code</th><th>Location</th><th>Malfunction Code</th><th>Location</th></tr>
<tr><td>C0998-F</td><td>LCC Shift-Tray</td><td>C0F02</td><td>Orig. Size Det. CPU</td></tr>
<tr><td>C09CX</td><td>LCT</td><td>C0F10</td><td>EE Sensor</td></tr>
<tr><td>C0E0X</td><td>Main Erase Lamp</td><td>C0F2X</td><td>AIDC Sensor</td></tr>
<tr><td>C0E20</td><td>Auxil. Erase Lamp</td><td>C0F3X</td><td>ATDC Sensor</td></tr>
</table>
<Trouble 6/7>
<table>
<tr><th>Malfunction Code</th><th>Location</th><th>Malfunction Code</th><th>Location</th></tr>
<tr><td>C0F6X</td><td>Paper Size Sensor</td><td>C0b10-3</td><td>Sorter (Paper Clamp)</td></tr>
<tr><td>C0F79</td><td>Paper Empty Sensor</td><td>C0b18-d</td><td>Original Guide Motor</td></tr>
<tr><td>C0FE/FX</td><td>Original Sensor</td><td>C0b2X</td><td>Sorter (Staple Unit)</td></tr>
<tr><td>C0b0X</td><td>Sorter (Transport)</td><td>C0b3X</td><td>Sorter (Guide)</td></tr>
</table>
<Trouble 7/7>
<table>
<tr><th>Malfunction Code</th><th>Location</th><th>Malfunction Code</th><th>Location</th></tr>
<tr><td>C0b4X</td><td>Sorter (Gate Motor)</td><td>C0d00</td><td>Front/Rear Guide</td></tr>
<tr><td>C0b5X</td><td>Sorter (Staple)</td><td>C0d20</td><td>Dup Storage</td></tr>
<tr><td>C0b6X</td><td>Sorter (Bin Shift)</td><td>C0d5X</td><td>Dup Drive Motor</td></tr>
<tr><td>C0b7X</td><td>Sorter (Punch)</td><td></td><td></td></tr>
</table>
<Clearing a Count>
Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key.
Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.
</td></tr>
</table>

Tech. Rep. Mode ▶ Counter

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Maintenance</td><td>Five different values (counts) can be set for the Maintenance Counter. Each counter is increased by 1 each time a copy is made and, when the preset count is reached, the maintenance call reminder message and maintenance code “M1” appear on the Touch Panel.
Note: Whether the maintenance call reminder message is given or not depends on the setting made for “Maintenance” of “Tech. Rep. Choice.” Also, copying is not inhibited even when the reminder message appears.
<Setting a Count>
1. Using the ▼ or ▲ key, select the counter to be set.
2. Enter the value from the 10-Key Pad.

<Clearing the Set Value/Count>
Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key.
Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.</td></tr>
<tr><td>Port/option</td><td>Shows the frequency of use of each of the different parts of the copier including options to serve as a guideline for the maintenance time for the Tech. Rep.
<Port/Option 1/3>
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>Manual Feed</td><td>No. of sheets of paper fed from the Multi Bypass Tray</td><td>3rd Drawer</td><td>No. of sheets of paper fed from the 3rd Drawer</td></tr>
<tr><td>1st Drawer</td><td>No. of sheets of paper fed from the 1st Drawer</td><td>4th Drawer</td><td>No. of sheets of paper fed from the 4th Drawer</td></tr>
<tr><td>2nd Drawer</td><td>No. of sheets of paper fed from the 2nd Drawer</td><td>5th Drawer</td><td>————</td></tr>
</table>
<Port/Option 2/3>
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>ADF Entrance</td><td>No. of sheets of paper fed through the ADF take-up section.</td><td>Sorter</td><td>No. of sheets of paper fed out of the Sorter</td></tr>
<tr><td>ADF Reverse</td><td>No. of originals fed through the turnover unit of the ADF</td><td>Staple</td><td>No. of stapling sequences performed</td></tr>
<tr><td>DUP</td><td>No. of sheets of paper fed from the Duplex Unit</td><td>Punch</td><td>No. of punching sequences performed</td></tr>
</table>
</td></tr>
</table>

Tech. Rep. Mode ▶ Counter

Touch Panel Display	**Operation**
Port/option	<Port/Option 3/3> Display: PC Drum — Description: No. of revolutions of the PC Drum, as converted to the number of sheets of A4 crosswise paper fed through the copier Display: Developer — Description: No. of sheets of paper fed through Display: Fusing Roller — Description: No. of revolutions of the Fusing Roller, as converted to the number of sheets of A4 crosswise paper fed through the copier Display: LCT — Description: No. of sheets of paper fed through the LCT <Clearing a Count> Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key. Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.

<Port/Option 3/3>

Display	Description
PC Drum	No. of revolutions of the PC Drum, as converted to the number of sheets of A4 crosswise paper fed through the copier
Developer	No. of sheets of paper fed through
Fusing Roller	No. of revolutions of the Fusing Roller, as converted to the number of sheets of A4 crosswise paper fed through the copier
LCT	No. of sheets of paper fed through the LCT

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Consumables</td><td>● Copy kit
Enter the count of the Copy Kit counter. When the count, which is increased by 1 each time a copy is made, reaches the set count, the maintenance call reminder message, together with maintenance code “M4,” is displayed.
Note: Whether the maintenance call reminder message is given or not depends on the setting made for “Copy Kit Counter” of “Tech. Rep. Choice.”
● Toner collect/Web Roller
Enter the count of the Toner Collect and Web Roller counters. When the count, which is increased by 1 each time a copy is made, reaches the set count, the maintenance code (“M2” for Toner Collect and “M3” for Web Roller) is displayed. When making 20K more copies after the maintenance code has been displayed, the copier inhibits the initiation of a new copy cycle, giving the maintenance call reminder message.
Note: The set count should be no more than 400k.
<Setting a Count>
1. Using the ▼ or ▲ key, select the counter to be set.
2. Enter the value from the 10-Key Pad.
<Clearing the Set Value/Count>
Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key.
Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.
<Resetting the Counter>
Using the ▼ / ▲ key, select the counter corresponding to the displayed maintenance code, then press the clear key.</td></tr>
<tr><td>Auto CPU Reset</td><td>Shows whether a CPU overrun has occurred in different CPU-mounted boards which are monitored by the watchdog function.
<table>
<tr><th>Display</th><th>Description</th><th>Display</th><th>Description</th></tr>
<tr><td>MSC/Panel</td><td>PWB-B</td><td>ADF</td><td>Original System Opt.</td></tr>
<tr><td>Master</td><td>PWB-A</td><td>Sorter</td><td>Exit System Opt.</td></tr>
<tr><td>SCP</td><td>UN2</td><td>Data Controller</td><td>D-102 (PWB-A)</td></tr>
</table>
Note: This counter does not count the number of CPU overruns which have occurred. “1” indicates that there was a CPU overrun, while “0” indicates there was no CPU overrun.
<Clearing the Count>
Using the ▼ or ▲ key, highlight the count to be cleared, then press the Clear key.
Note: If a count is accidentally cleared, pressing the Interrupt key will undo the clear operation.</td></tr>
</table>

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5. I/O Check

- This function is used to check the sensors and boards when a paper misfeed or malfunction occurs, thereby locating the fault.

Tech. Rep. Mode ▶ I/O Check

Touch Panel Display	**Operation**
IC Port Data Check	Shows the states of the I/O ports when the copier is in stand-by. With the output ports, the change of the data in the port allows an operation check of electrical components to be performed. ***NOTE*** *For details, see TROUBLESHOOTING.*
Paper Path Sensors Check	A sheet of paper is fed through the copier to switch the state of sensors along the paper path between 1 and 0, thereby determining whether the sensors are operational or faulty. <Procedure> 1. Select the paper path (paper source, copying mode, etc.) to be checked and enter this function. 2. Press the Start key to start the sensor check sequence.

No.	Display	Sensor Name
1	1st Feed	1st Drawer Paper Take-up Sensor PC6
2	2nd Feed	2nd Drawer Paper Take-up Sensor PC7
3	3rd Feed	3rd Drawer Paper Take-up Sensor PC8
4	4th Feed	————
5	1st Vertical	Vertical Transport Sensor 1 PC10
6	2nd Vertical	Vertical Transport Sensor 2 PC11
7	3rd Vertical	Vertical Transport Sensor 3 PC12
8	4th Vertical	Vertical Transport Sensor 4 PC13
9	Trans. Roller	Transport Roller Sensor PC26
10	Leading Edge	Paper Leading Edge Sensor PC27
11	1st Exit	Paper Exit Sensor PC33
12	2nd Exit	————
13	Turnover Up	Turnover Feed Sensor PC34
14	Turnover Low	Duplex Unit Turnover Path Sensor PC35
15	Dup Entrance	Duplex Unit Paper Entry Sensor PC36
16	Dup Exit	Duplex Unit Paper Take-Up Sensor PC37
17	Non Sort	Non-Sort Exit Sensor PC1
18	Sort	Sort Exit Sensor PC2
19	Punch Regist	Punch Registration Sensor PC10

Note: The sensor detects paper when “0” and no paper when “1”.

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Memory Check</td><td>Touching the Memory Check key causes the copier to automatically check the ROM/RAM on MSC Board PWB-B.
<table>
<tr><th>Result</th><th>Display</th><th>Action</th></tr>
<tr><td>Normal</td><td>“Memory check completed. Turn the main switch OFF, and then ON.”</td><td>Turn OFF, then ON, the Power Switch.</td></tr>
<tr><td rowspan="5">Faulty</td><td>“ROM ERROR”</td><td>Change PWB-B (IC2B)</td></tr>
<tr><td>“MESSAGE ROM ERROR”</td><td>Change PWB-B (IC2B)</td></tr>
<tr><td>“RAM ERROR”</td><td>Change PWB-B.</td></tr>
<tr><td>“VRAM ERROR”</td><td>Change PWB-B.</td></tr>
<tr><td>“LCDTC ERROR”</td><td>Change PWB-B.</td></tr>
</table>
</td></tr>
<tr><td>Controller Board Check</td><td>Touching the Controller Board Check key causes the copier to perform a self-diagnostic of Master Board PWB-A.
<table>
<tr><th>Result</th><th>Display</th><th>Action</th></tr>
<tr><td>Normal</td><td>The highlighted “Controller Board Check” key is returned to normal display.</td><td>None</td></tr>
<tr><td>Faulty</td><td>The malfunction code appears.</td><td>Change PWB-A.</td></tr>
</table>
</td></tr>
<tr><td>Panel Indication Check</td><td>Checks the LEDs and Touch Panel on the control panel for correct operation.
<Procedure>
1. Touch the Panel Indication Check key.
2. All LEDs light up and then each LED goes out in the following order. When all LEDs go out, they all light up again and the above sequence is repeated. (The LEDs should alternately light up and go out in said manner.)
→ All ON → Mode Check key → Energy Saver key → Interrupt key → Start key (green) → Start key (orange) →
3. A checkered pattern appears on the Touch Panel.
4. Select an individual grid. The grid should switch from white to black, or vice versa, when it is selected. If it works that way, the corresponding liquid crystal is considered to be operational.
5. Press the Panel Reset key to complete the procedure.</td></tr>
</table>

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6. Last Trouble

Tech. Rep. Mode ▶ Last Trouble

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>Last Trouble</td><td>Touching the Last Trouble key shows the various copying settings made when the last malfunction occurred, thereby providing a basis for determining the cause of the problem.
<table>
<tr><th>Item</th><th>Description</th></tr>
<tr><td>No. of copies</td><td>No. of copies setting</td></tr>
<tr><td>Copy paper</td><td>Auto Paper, paper size</td></tr>
<tr><td>Zoom ratio</td><td>Auto Size, zoom ratio</td></tr>
<tr><td>Image density</td><td>Auto Exposure, Manual Exp. setting</td></tr>
<tr><td>Mixed Orig. Detection</td><td>On, off</td></tr>
<tr><td>Orig. ▶ copy</td><td>1 ▶ 1, 1 ▶ 2, 2 ▶ 2, etc.</td></tr>
<tr><td>Finishing</td><td>Non-Sort, Sort, Group, Sort Staple, Punch</td></tr>
<tr><td>Cover</td><td>Cover (Front), Cover (Front & Back), Copied Cover, Non-Copied Cover</td></tr>
<tr><td>Page Insertion</td><td>Copied Inserts, Non-Copied Inserts</td></tr>
<tr><td>OHP Interleaving</td><td>Copied Interleaves, Non-Copied Interleaves</td></tr>
<tr><td>File Margin</td><td>Method, position, width</td></tr>
<tr><td>Erase</td><td>Method, position, width</td></tr>
</table>
</td></tr>
</table>

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7. ROM Version

Tech. Rep. Mode ▶ ROM Version

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>ROM Version</td><td>Shows the ROM versions of the following boards.
<table>
<tr><th>Display</th><th>Description</th></tr>
<tr><td>MSC/Panel IC2B</td><td>PWB-B</td></tr>
<tr><td>Master IC2A</td><td>PWB-A</td></tr>
<tr><td>SCP IC1 UN2</td><td>UN2</td></tr>
<tr><td>ADF</td><td>PWB-A of AFR-13, AFR-1000</td></tr>
<tr><td>Sorter</td><td>PWB-A of S-209, ST-212, ST-213, ST-1000, ST-1100</td></tr>
<tr><td>Data Controller IC2</td><td>D-102 board</td></tr>
</table>
</td></tr>
</table>

8. RD Mode

Tech. Rep. Mode ▶ RD Mode

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted.)</th></tr>
<tr><td>RD Mode</td><td>Make the initial settings of the copier for the Data Terminal.</td></tr>
<tr><td>ID Code</td><td>Entering of a 7-digit ID code from the 10-Key Pad enables making the following settings. When the ID code is entered and transmitted after the initial settings have been made, it executes the transmission of MAINT. START to the Center.</td></tr>
<tr><td>Maintenance</td><td>Used to make the initial settings and various transmissions.</td></tr>
<tr><td>DT Setting</td><td>Enter the following data.</td></tr>
<tr><td>CT-ID</td><td>Enter the 4-digit ID number of the Center which has been programmed in the Center personal computer.</td></tr>
<tr><td>DT-ID</td><td>Enter the 6-digit ID number of the Data Terminal.</td></tr>
<tr><td>TEL No.</td><td>Enter the 19-or-less-digit phone number of the modem connected to the Center personal computer.
Note 1: When the office extension and outside line use different systems, enter “P” for a “pulse” telephone line or “T” for a “tone” telephone line before the outside line number.
Note 2: The time it takes the private branch exchange (PBX) system to switch from the extension line to the outside line varies depending on the type of PBX system used. Set this time as follows.
Fixed switching time: Enter the pause code “–” (a single “–” lasts 2 sec.).
Varying switching time: Enter the wait code “W.”</td></tr>
<tr><td>Common DT</td><td>Settings of the following functions.</td></tr>
<tr><td>Dial Mode</td><td>Select the type of telephone line of the user.
<table>
<tr><td>Pulse line</td><td>Tone line</td></tr>
<tr><td>Pulse</td><td>Tone</td></tr>
</table></td></tr>
<tr><td>Auto Receive</td><td>Choose “Yes” or “No” for the auto reception function.
<table>
<tr><td>YES</td><td>NO</td></tr>
</table>
Note: Select “Yes” if the line is dedicated to the Data Terminal.</td></tr>
<tr><td>Result Code</td><td>Set the value according to the type of modem on the copier.
Note: Don’t use this function as long as “5” has been set for it.</td></tr>
<tr><td>Report Format</td><td>Japan only
<table>
<tr><td>10 BIT</td></tr>
</table></td></tr>
<tr><td>RAM Clear</td><td>Reinitializes the Data Terminal.
<table>
<tr><td>Maintenance</td><td>NO</td></tr>
</table></td></tr>
</table>

Touch Panel Display	**Setting**
RD Mode	. . . .
Maintenance	. . . .
Data Save/Load	Enables transmission of Data Save and Data Load.
Data Save	Transmits the command that saves the PPC RAM data to the Center.
Data Load	Transmits the command that loads the data sent by Data Save back to the PPC.
Initial Transmission	Used to perform the initial transmission from the PPC to the Center to check for correct communication when the Data Terminal has been set up.
Call Completion	Used by the Tech. Rep. to notify the Center that his/her service job for the copier has been completed.
Counter Clear	Used to clear the count of the spare counter set by the Center. <Procedure> 1. Select the spare counter to be cleared. 2. Touch "Call Completion" which transmits a signal to the Center to clear the count of the specified counter.

9. Accessory Test

- This function is used to make an operation check and adjustments to the ADF and Sorter or Staple Sorter.

Tech. Rep. Mode ▶ Accessory Test

<table>
<tr><th>Touch Panel Display</th><th>Setting (The default is Highlighted .)</th></tr>
<tr><td>ADF Check</td><td>Enables the operation check and adjustments to be performed for the document feeder.</td></tr>
<tr><td>Paper Passage & Input Check</td><td>Makes a paper passage test in each operating mode of the ADF and checks the sensors along the paper path for operation.
<table>
<tr><td>Step Feed</td><td>2in1</td><td>2-Sided</td></tr>
<tr><td>Normal</td><td>SADF</td><td></td></tr>
</table>
<table>
<tr><td>Empty Sensor
ADF Entrance Sensor
Register Sensor
Exit Sensor
Auto Feeder Empty Sensor</td><td>Width Sensor A
Width Sensor B
Width Sensor C
Exit Drawer Sensor
Orig. Guide Home Sensor</td></tr>
</table>
Note: “1” – paper present; “0” – paper not present
<Procedure>
1. Select the operating mode to be checked and touch “Next.”
2. Load the required number of originals into the Document Feed Tray and press the Start key.</td></tr>
<tr><td>Output Check</td><td>Checks each of the motors and solenoids for operation.
<table>
<tr><td>M1</td><td>M2</td><td>M3</td><td>M4</td><td>M5</td></tr>
<tr><td>SL1</td><td>SL2</td><td>SL3</td><td>SL4</td><td>CL</td></tr>
</table>
<Procedure>
● Select the part to be checked and press the Start key.</td></tr>
<tr><td>Doc. Stop Position Set</td><td>Adjusts the document stop position in different operating modes of the ADF.
<table>
<tr><td>1-Sided
2-Sided
2 in 1</td><td>2in1 Space in between origs.
Auto Feeder
Regist Loop</td></tr>
</table>
<table>
<tr><td>Setting</td><td>43 .... 50 .... 58</td></tr>
<tr><td>Stop Position</td><td>–7mm .... 0mm .... +8mm</td></tr>
</table>
Note: A greater setting value (+ direction) moves away from the Original Width Scale. (In “2in1 Space between origs.,” it is for greater distance between the documents.)
<Procedure>
1. Select the operating mode to be checked and load the required number of originals into the Document Feed Tray.
2. Press the Start key. When the original is taken up and then stopped, raise the ADF and adjust the stop position using the ◀ or ▶ key; then, feed the original once again for a recheck.</td></tr>
</table>

Touch Panel Display	Setting
Sorter Check	Enables the following operation checks to be performed for the Sorter.
Transport Motor	Pressing the Start key energizes the Transport Motor to turn the various Transport Rollers. Note: The 10-Bin Sorter is not operated.
Bin Movement	Pressing the Start key energizes the Bin Moving Motor to move the bins up and down.
Stapling	Pressing the Start key runs a stapling sequence if paper is loaded in the 1st Bin. If no paper is loaded, only a paper clamp motion occurs.
Paper Aligning	Pressing the Start key causes a paper aligning motion to occur for the width of the paper currently selected for use.
Stack move	Pressing the Start key begins a sequence in which paper is stacked in order starting with the paper loaded in the 1st Bin.
	When "Next" is touched after any of the Sorter Check functions has been selected, the "Input Check" screen appears. When that particular check operation is then run with this screen on the Touch Panel, either 1 or 0 is shown after each sensor according to its state. Paper Aligning Bar Home / Stapler Home Bin Empty / Bin Home Position Paper Clamp Position / Staple unit FD move Paper Clamp Home / Staple Unit CD Constant Position Staple Paper Detect / Gate Unit constant Position Sort path constant Position

1161SBS050410A

10. Level History

- This function is used to show and set the various level histories which were changed according to the operating conditions of the copier and user requirements.

Tech. Rep. Mode ▶ Level History

Touch Panel Display	**Setting**
Level History	Touching the Level History key will show the various level histories as detailed below. Of all data displayed, only that for “ATDC Ref. Value” and “Fuser Temp. Control” can be changed. – ATDC Ref. Value – ● Change this data when the RAM Board has been changed or a Developing Unit from another copier has been installed. – Fuser Temp. Control – ● Change this data if fusing performance becomes poor due to the operating environment and the paper being used.

<Level History 1/2>

Display	Variable Range	Increments	Description
ATDC Ref. Value	2 to 254	2 steps	F8 adjusted value
ATDC Target Level	1.0 to 9.0 (%)	0.5 %	Target ATDC level
ATDC Current Level	1.0 to 9.0 (%)	0.5 %	Current ATDC level
Vg Default Level	400 to 850 (V)	30 V	Initial grid voltage setting
Vg Current Level	400 to 850 (V)	30 V	Grid voltage correction value due to changes with time

<Level History 2/2>

Display	Variable Range	Increments	Description
	– EP8015 –		
Fuser Temp. Control	190 to 210 (°C)	10 °C	Target fusing temperature
Fuser Temp. Current	160 to 220 (°C)	10 °C	Current fusing temperature
	– EP6001 –		
Fuser Temp. Control	180 to 200 (°C)	10 °C	Target fusing temperature
Fuser Temp. Current	160 to 220 (°C)	10 °C	Current fusing temperature
Expo. Default Level	80 to 72 (V)	1 V	Initial Exposure Lamp level setting
Expo. Current Level	80 to 72 (V)	1 V	Exposure Lamp level correction value due to changes with time
Toner Replenishing Time	0 to 1270 (mm)	10 steps	Cumulative time of toner replenishing

1161SBS050411A

11. Machine Status

- This function shows the codes of isolated malfunctions which are currently present. This screen is also accessible by touching the wrench mark shown at the bottom left corner of the Basic screen under normal operating conditions.

Tech. Rep. Mode ▶ Machine Status

Touch Panel Display	Setting
Machine Status	Of the malfunction codes listed below, those that have occurred are displayed together with the functions that are disabled by these malfunctions. Up to five isolated malfunctions are shown. When a sixth isolated malfunction occurs, the copier considers it as an ordinary malfunction. Even if there are less than five isolated malfunctions, if there are isolated malfunctions occurring at all paper sources, the next isolated malfunction will be regarded as an ordinary one. **NOTE** *For details, see TROUBLESHOOTING.* <Clearing Procedure> With the Machine Status screen on the Touch Panel, swing open and close the Front Door to clear all the isolated malfunctions.

1149SBS050412A

12. Admin. Mode

- This function is used to enter or change the administrator number, in addition to the functions set in the "Administrator Mode" available from User's Choice.

Tech. Rep. Mode ▶ Admin. Mode

Touch Panel Display	Setting
Copy Track	See "Administrator Mode" of User's Choice.
Copy Track Data	
Max. Copy Sets	
User Help	
Administrator # Input	From the 10-Key Pad, enter a 4-digit number (0000 to 9999) that serves as an ID number for opening the "Admin. Mode" of User's Choice.

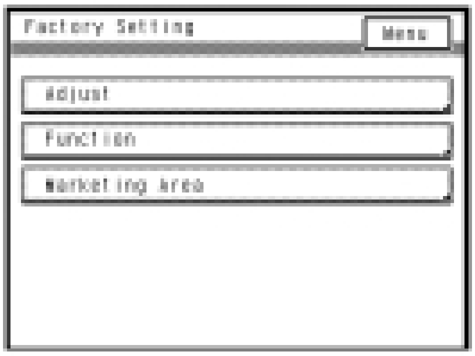
1149SBS0600A

6 FACTORY SETTING

- Factory Setting is used to make adjustments at the factory.

1149SBS0601A

6-1. Factory Setting Menu Screen



1149O424CA

1149SBS0602A

6-2. Factory Setting Function Setting Procedure

<Setting Procedure>

1. Set the copier into the Tech. Rep. mode by pressing the following keys in this order.

Stop key ➡ 0 ➡ Stop key ➡ 1

2. Enter the Factory Setting mode by pressing the following keys in this order.

Stop key ➡ Start key

3. Select the particular Factory Setting function to be set.
4. Make the necessary settings by following the instructions given sequentially on the screen.

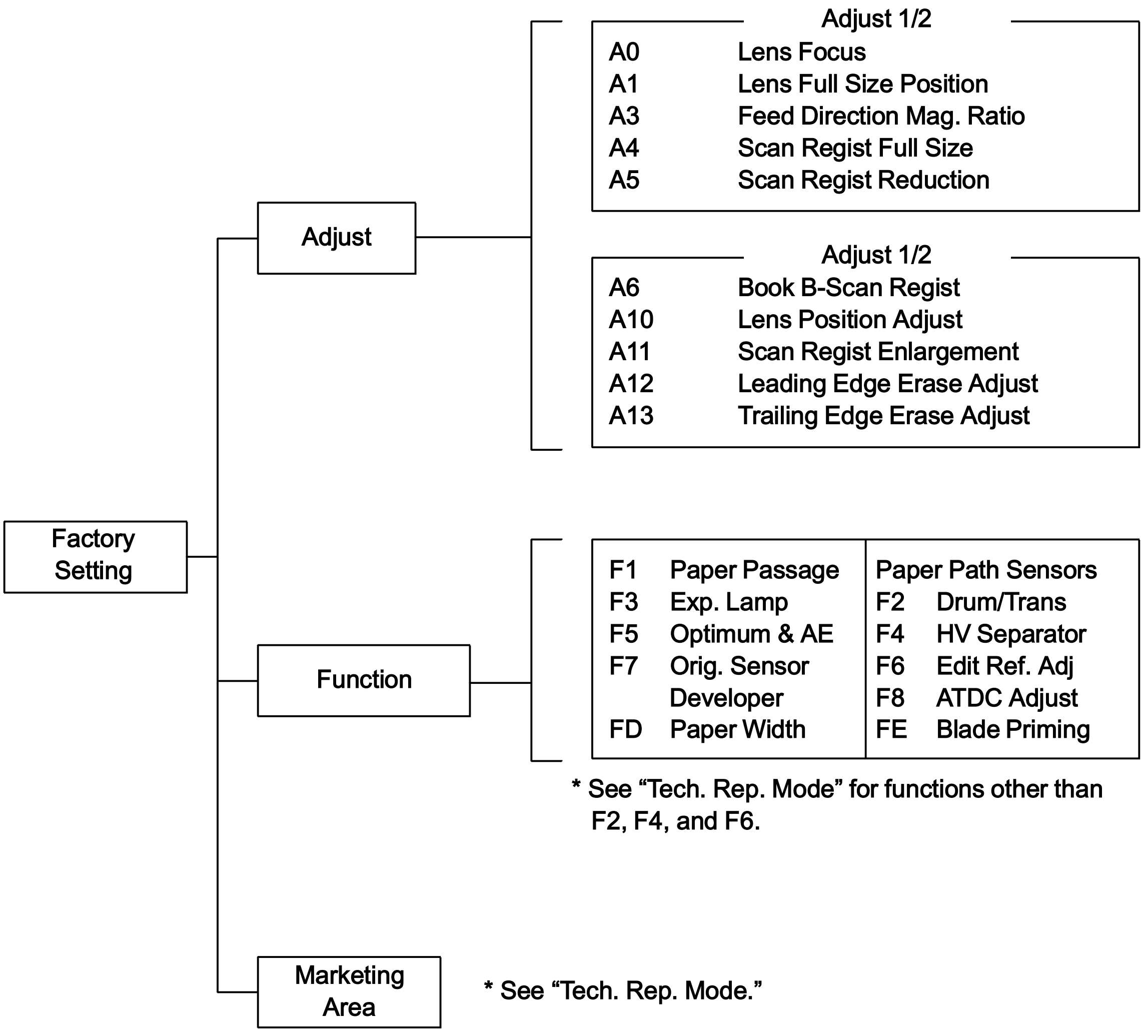
NOTE: The function selected is highlighted.

<Exiting the Mode>

- Press the Panel Reset key on the control panel.

1161SBS0603A

6-3. Factory Setting Function Tree


Factory Setting
Adjust
Function
Marketing Area
Adjust 1/2
A0 Lens Focus
A1 Lens Full Size Position
A3 Feed Direction Mag. Ratio
A4 Scan Regist Full Size
A5 Scan Regist Reduction
Adjust 1/2
A6 Book B-Scan Regist
A10 Lens Position Adjust
A11 Scan Regist Enlargement
A12 Leading Edge Erase Adjust
A13 Trailing Edge Erase Adjust
F1 Paper Passage
F3 Exp. Lamp
F5 Optimum & AE
F7 Orig. Sensor
Developer
FD Paper Width
Paper Path Sensors
F2 Drum/Trans
F4 HV Separator
F6 Edit Ref. Adj
F8 ATDC Adjust
FE Blade Priming

* See “Tech. Rep. Mode” for functions other than F2, F4, and F6.

* See “Tech. Rep. Mode.”

1161SBS060301A

1. Function

Factory Setting ▶ Function

Touch Panel Display	**Operation**
F2 Drum/Trans	Checks the PC Drum Charge Corona and Image Transfer Corona for output. Note: For factory adjustment only.
F4 HV Separator	Checks the Paper Separator Corona for output. Note: For factory adjustment only.
F6 Edit Ref. Adj	Pressing the Start key turns ON and OFF the Image Erase Lamp to make a checkered pattern on paper for checking the lamp for correct operation and adjusting its position.

– Components Energized in “Function” –

Component	F1	F2	F3	F4	F5	F6	F7	F8	FD	FF
Paper take-up	○	—	—	—	—	○	—	—	—	—
Synchronizing Motor	○	—	—	—	—	○	—	—	—	—
PC Drum Drive Motor	○	○	○	○	○	○	—	○	—	○
Fusing Motor	○	—	—	—	—	○	—	—	—	—
Fan Motors	○	○	○	○	○	○	—	○	—	○
Scan	○	—	○	—	○	○	—	—	—	—
Toner Replenishing Motor	○	—	—	—	—	○	—	—	—	○
Exposure Lamp	○	—	○	—	○	—	—	—	—	—
Main Erase Lamp	○	○	○	○	○	○	—	○	—	○
Image Erase Lamp	○	—	○	—	○	○	—	○	—	○
Pre-Image Transfer Erase Lamp	○	—	○	—	○	○	—	○	—	○
Pre-Cleaning Erase Lamp	○	—	○	—	—	○	—	○	—	○
Separator Finger Solenoid	○	—	—	—	—	○	—	—	—	—
PC Drum Charge Corona	○	○	—	—	○	○	—	—	—	○
Image Transfer Corona	○	○	—	—	○	○	—	—	—	—
Paper Separator Corona	○	—	—	○	○	○	—	—	—	—
Pre-Image Transfer Corona	○	○	—	—	○	○	—	—	—	—
Developing Bias	○	○	○	○	○	○	—	○	—	○
Misfeed detection	○	—	—	—	—	○	—	—	—	—
Malfunction detection	○	○	○	○	○	○	○	○	○	○

○: Energized — : Remains deenergized

1161SBS060302A

2. Adjust

- This function is used to adjust the optical system before shipment from the factory and must not be run except when the RAM Board has been replaced with a new one or memory cleared. Further, when the RAM Board has been changed or memory cleared, enter the factory settings indicated on the Adjust Mode label affixed to the inside of the Front Door.

Factory Setting ▶ Adjust

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>A0 Lens Focus</td><td>Corrects the focal length of the Lens. (Match the grouping of the Lens being used.)
<table>
<tr><td>Setting</td><td>49</td><td>50</td><td>51</td></tr>
<tr><td>Description</td><td>Short focal length adjustment</td><td>Standard</td><td>Long focal length adjustment</td></tr>
</table></td></tr>
<tr><td>A1 Lens Full Size Position</td><td>Adjusts the zoom ratio in the crosswise direction by varying the Lens full size position.
<table>
<tr><td>Setting</td><td>43 .... 50 .... 58</td></tr>
<tr><td>Description</td><td>Reduction direction ... Enlargement direction</td></tr>
</table></td></tr>
<tr><td>A3 Feed Direction Mag. Ratio</td><td>Adjusts the zoom ratio in the feeding direction by varying the scan speed.
<table>
<tr><td>Setting</td><td>46 .... 50 .... 54</td></tr>
<tr><td>Description</td><td>–1.6% (Reduction direction) .... 0% .... +1.6% (Enlargement direction)</td></tr>
</table></td></tr>
<tr><td>A4 Scan Regist Full Size</td><td>Corrects the amount of offset along the leading edge in the full size mode by varying the Synchronizing Roller start timing.
<table>
<tr><td>Setting</td><td>40 .... 50 .... 60</td></tr>
<tr><td>Description</td><td>–5.0mm (Smaller) .... ±0 .... +5.0mm (Greater)</td></tr>
</table></td></tr>
<tr><td>A5 Scan Regist Reduction</td><td>Corrects the amount of offset along the leading edge in a reduction mode by varying the Synchronizing Roller start timing.
<table>
<tr><td>Setting</td><td>40 .... 50 .... 60</td></tr>
<tr><td>Description</td><td>–5.0mm (Smaller) .... ±0 .... +5.0mm (Greater)</td></tr>
</table></td></tr>
</table>

Factory Setting ▶ Adjust

<table>
<tr><th>Touch Panel Display</th><th>Operation</th></tr>
<tr><td>A6 Book B-Scan Regist</td><td>Corrects registration in Book B-Scan by varying the Synchronizing Roller start timing.
<table>
<tr><td>Setting</td><td>45 .... 50 .... 55</td></tr>
<tr><td>Description</td><td>–2.5mm (Smaller) .... ±0 .... +2.5mm (Greater)</td></tr>
</table></td></tr>
<tr><td>A10 Lens Position Adjust</td><td>Adjusts the center registration by varying the reference position of the Lens.
<table>
<tr><td>Setting</td><td>40 .... 50 .... 60</td></tr>
<tr><td>Description</td><td>To front of image .... To rear of image</td></tr>
</table></td></tr>
<tr><td>A11 Scan Regist Enlargement</td><td>Corrects the amount of offset along the leading edge in an enlargement mode by varying the Synchronizing Roller start timing.
<table>
<tr><td>Setting</td><td>40 .... 50 .... 60</td></tr>
<tr><td>Description</td><td>–5.0mm (Smaller) .... ±0 .... +5.0mm (Greater)</td></tr>
</table></td></tr>
<tr><td>A12 Leading Edge Erase Adjust</td><td>Corrects the width of void image along the leading edge of the image by varying the Image Erase Lamp ON timing.
<table>
<tr><td>Setting</td><td>42 .... 50 .... 58</td></tr>
<tr><td>Description</td><td>–8mm (Smaller) .... ±0 .... +8mm (Greater)</td></tr>
</table></td></tr>
<tr><td>A13 Trailing Edge Erase Adjust</td><td>Corrects the width of void image along the trailing edge of the image by varying the Image Erase Lamp ON timing.
<table>
<tr><td>Setting</td><td>42 .... 50 .... 58</td></tr>
<tr><td>Description</td><td>–8mm (Smaller) .... ±0 .... +8mm (Greater)</td></tr>
</table></td></tr>
</table>

1161SBS000EA

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1161SBT000AA

EP8015/EP6001

TROUBLESHOOTING

MINOLTA

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1139SBT0100A

1 INTRODUCTION

1161SBT0101A

1-1. General Precautions

1. When servicing the copier with its covers removed, use utmost care to prevent your hands, clothing, and tools from being caught in revolving parts including the chains and gears. When servicing the copier with the Lower Rear Cover removed, be sure to install the jig.
2. Before attempting to replace parts and unplug connectors, make sure that the power cord of the copier has been unplugged from the wall outlet.
3. Never create a closed circuit across connector pins except those specified in the text and on the printed circuit.
4. When creating a closed circuit and measuring a voltage across connector pins specified in the text, be sure to use the green wire (GND).
5. When the user is using a word processor or personal computer from the wall outlet of the same line, take necessary steps to prevent the circuit breaker from opening due to overloads.
6. Keep all disassembled parts in good order and keep tools under control so that none will be lost or damaged.

1139SBT0102A

1-2. How to Use This Book

1. If a component on a PWB or any other functional unit including a motor is defective, the text only instructs you to replace the whole PWB or functional unit and does not give troubleshooting procedures applicable within the defective unit.
2. All troubleshooting procedures contained herein assume that there are no breaks in the harnesses and cords and all connectors are plugged into the right positions.
3. For the removal procedures of covers and parts, see DIS/REASSEMBLY, ADJUSTMENT.
4. The troubleshooting procedures are given in the order of greater frequency of trouble or order of operation.
5. The procedures preclude possible malfunctions due to noise and other external causes.

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1-3. Reading the Text

1. The paper transport failure troubleshooting procedures are given according to the symptom. First identify the location where the paper is present and start the procedure for that particular location. For malfunction troubleshooting, start with step 1 and onward.
2. Make checks in numerical order of steps and, if an item is checked okay, go to the next step.

Pattern 1

Step	Check Item	Result	Action
1	Is...?	YES	Do this.
2		↑ Go to step 2 if you answered NO.	

Pattern 2

Step	Check Item	Result	Action
1	Is...?	YES	Do this.
		NO	Check that.
2			↑ Go to step 2 if it checks okay.

1161SBT0200A

2 I/O PORT CHECK

1161SBT0201A

2-1. Controlled Parts Check Procedure

To allow the Tech. Rep. to easily and safely determine whether a particular controlled part is fully operational, this copier provides the following provision: checking the data of the I/O port of the board IC with the copier in the standby state (including a misfeed, malfunction, and closure failure condition) allows the Tech. Rep. to determine whether a signal is properly input to, and output from, a controlled part.

<Procedure>

1) On the circuit diagram accompanying the text, locate the I/O port of the controlled part which is probably defective when a misfeed or malfunction occurs.
2) Select the “IC Port Data Check” function of “I/O Check” in the Tech. Rep. mode and access the screen which contains the port identified in step 1 above. (See SWITCHES ON PWBs/TECH. REP. MODE.)
3) Change or check the input or output port data to determine whether the controlled part is operational and signals are properly input and output.
4) If the controlled part does not operate properly after changing the output port data, select “Controller Board Check” of “I/O Check” in the Tech. Rep. mode and determine whether the board is responsible for that malfunction or not.

   Note: Only the output ports given on pages T-42 to 44 may be checked by “Controller Board Check” of “I/O Check” in the Tech. Rep. mode.

<Controlled Part Check Procedure by Changing Input Port Data>

Example: When a paper misfeed occurs in the paper take-up section of the copier, 1st Drawer Paper Take-Up Sensor PC6 is considered to be responsible for it.

<Procedure>

1) Remove the sheet of paper misfed and reset the misfeed.
2) From the I/O port check list, it is found that the H/L input signal to PC6 is supplied from PWB-F (IC1F) PC3.
3) Select “IC Port Check” from the I/O Check function in the Tech. Rep. mode and access the screen which includes the input ports of PWB-F (IC1F) PC3.
4) Check that the input port data of PWB-F (IC1F) PC3 on the screen is “H” (sensor being unblocked).
5) Move the PC6 actuator to block the sensor.
6) Return to the “I/O Check” basic screen once, select “IC Port Check” again, choose the screen which includes the PWB-F (IC1F) PC3 input port data, and make sure that the data has changed from “H” to “L”.

L: PC6 is operational. H: PC6 is faulty.

<Controlled Part Check Procedure by Changing Output Port Data>

Example: When a manual paper misfeed occurs, Manual Feed Paper Take-Up Clutch CL5 is considered to be responsible for it.

<Procedure>

1) Remove the sheet of paper misfed and reset the misfeed.
2) From the I/O port check list, it is found that the ON/OFF output signal of CL5 is supplied from PWB-A (IC4A) APC2.
3) Select “IC Port Check” from the I/O Check function in the Tech. Rep. mode and access the screen which includes the output ports of PWB-A (IC4A) APC2.
4) Check that the output port data of PWB-A (IC4A) APC2 on the screen is “1” (CL5 is deenergized).
5) Touch the “CHANGE” key on the screen to change the data from “1” to “0”, causing CL5 to be energized for approx. 5 seconds. This allows you to determine whether the Clutch is operational or faulty by checking for the Clutch sound.

   Operational: Sound produced. Faulty: No sound produced.

6) If CL5 was not energized, make the “Controller Board Check” in the same mode (for some electrical parts only).
7) If the “ON” signal of CL5 is not output from PWB-A, the corresponding malfunction code is displayed.

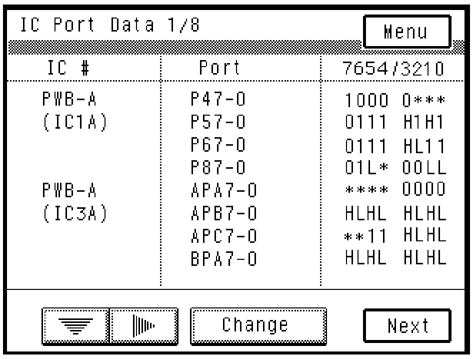
* For CL5, “C0343” is displayed.

1161SBT0202A

2-2. I/O Port Check List

<Port Check Screens>

- The following screens are only typical and the port data shown does not necessarily represent the actual one.

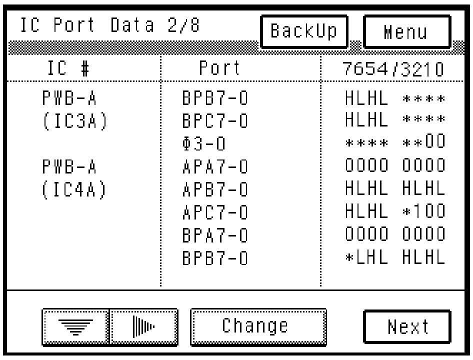


IC Port Data 1/8

IC #	Port	7654/3210
PWB-A (IC1A)	P47-0	1000 0***
	P57-0	0111 H1H1
	P67-0	0111 HL11
	P87-0	01L* 00LL
PWB-A (IC3A)	APA7-0	**** 0000
	APB7-0	HLHL HLHL
	APC7-0	**11 HLHL
	BPA7-0	HLHL HLHL

Menu
Change
Next

1161T010CA

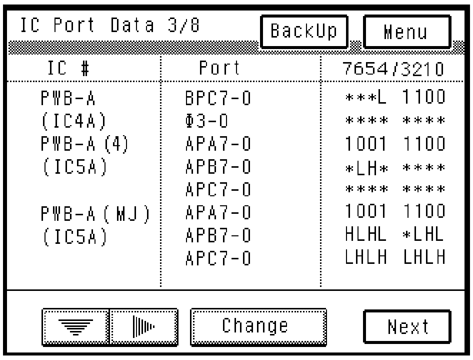


IC Port Data 2/8

IC #	Port	7654/3210
PWB-A (IC3A)	BPB7-0	HLHL ****
	BPC7-0	HLHL ****
	Φ3-0	**** **00
PWB-A (IC4A)	APA7-0	0000 0000
	APB7-0	HLHL HLHL
	APC7-0	HLHL *100
	BPA7-0	0000 0000
	BPB7-0	*LHL HLHL

BackUp
Menu
Change
Next

1161T011CA

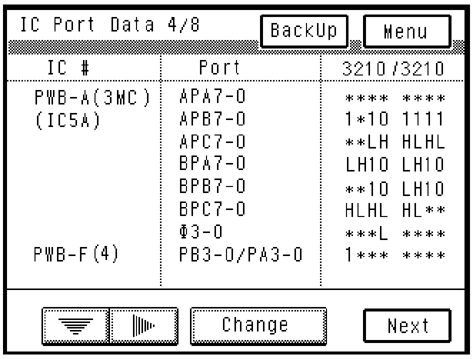


IC Port Data 3/8

IC #	Port	7654/3210
PWB-A (IC4A)	BPC7-0	***L 1100
	Φ3-0	**** ****
PWB-A (4) (IC5A)	APA7-0	1001 1100
	APB7-0	*LH* ****
	APC7-0	**** ****
PWB-A (MJ) (IC5A)	APA7-0	1001 1100
	APB7-0	HLHL *LHL
	APC7-0	LHLH LHLH

BackUp
Menu
Change
Next

1161T012CA

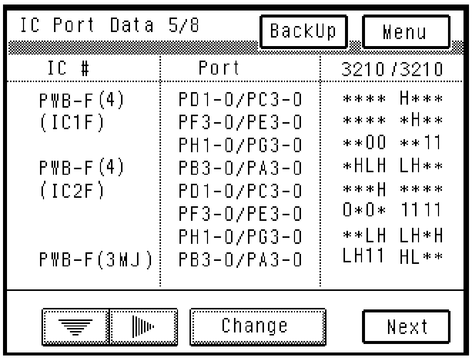


IC Port Data 4/8

IC #	Port	3210/3210
PWB-A(3MC) (IC5A)	APA7-0	**** ****
	APB7-0	1*10 1111
	APC7-0	**LH HLHL
	BPA7-0	LH10 LH10
	BPB7-0	**10 LH10
	BPC7-0	HLHL HL**
	Φ3-0	***L ****
PWB-F(4)	PB3-0/PA3-0	1*** ****

BackUp
Menu
Change
Next

1161T013CA

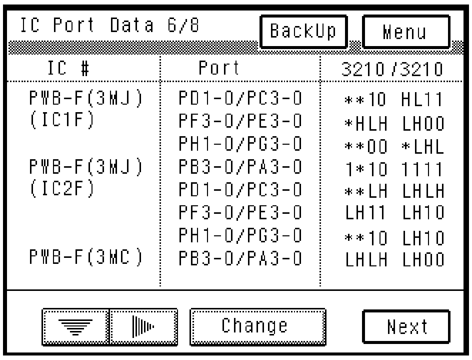


IC Port Data 5/8

IC #	Port	3210/3210
PWB-F(4) (IC1F)	PD1-0/PC3-0	**** H***
	PF3-0/PE3-0	**** *H**
	PH1-0/PG3-0	**00 **11
PWB-F(4) (IC2F)	PB3-0/PA3-0	*HLH LH**
	PD1-0/PC3-0	***H ****
	PF3-0/PE3-0	0*0* 1111
	PH1-0/PG3-0	**LH LH*H
PWB-F(3MJ)	PB3-0/PA3-0	LH11 HL**

BackUp
Menu
Change
Next

1161T014CA

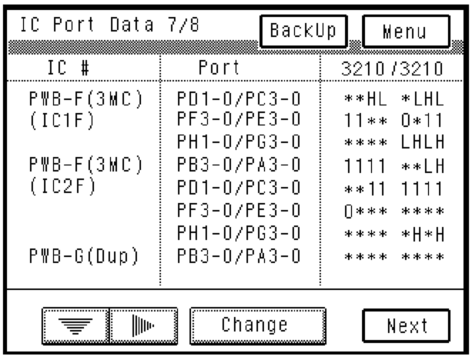


IC Port Data 6/8

IC #	Port	3210/3210
PWB-F(3MJ) (IC1F)	PD1-0/PC3-0	**10 HL11
	PF3-0/PE3-0	*HLH LH00
	PH1-0/PG3-0	**00 *LHL
PWB-F(3MJ) (IC2F)	PB3-0/PA3-0	1*10 1111
	PD1-0/PC3-0	**LH LHLH
	PF3-0/PE3-0	LH11 LH10
	PH1-0/PG3-0	**10 LH10
PWB-F(3MC)	PB3-0/PA3-0	LHLH LH00

BackUp
Menu
Change
Next

1161T015CA

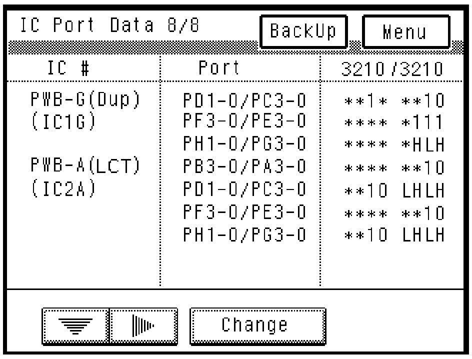


IC Port Data 7/8

IC #	Port	3210/3210
PWB-F(3MC) (IC1F)	PD1-0/PC3-0	**HL *LHL
	PF3-0/PE3-0	11** 0*11
	PH1-0/PG3-0	**** LHLH
PWB-F(3MC) (IC2F)	PB3-0/PA3-0	1111 **LH
	PD1-0/PC3-0	**11 1111
	PF3-0/PE3-0	0*** ****
	PH1-0/PG3-0	**** *H*H
PWB-G(Dup)	PB3-0/PA3-0	**** ****

BackUp
Menu
Change
Next

1161T016CA



IC Port Data 8/8

IC #	Port	3210/3210
PWB-G(Dup) (IC1G)	PD1-0/PC3-0	**1* **10
	PF3-0/PE3-0	**** *111
	PH1-0/PG3-0	**** *HLH
PWB-A(LCT) (IC2A)	PB3-0/PA3-0	**** **10
	PD1-0/PC3-0	**10 LHLH
	PF3-0/PE3-0	**** **10
	PH1-0/PG3-0	**10 LHLH

BackUp
Menu
Change

1161T017CA

<I/O Port Check List>

* The shaded areas of the following table indicate that the output check cannot be made by touching the Change key.

* Pages and numbers given in ( ) in the "Display Page" and "CN/PJ No." columns in the table are for copiers for the inch areas.

(Copier) * When an asterisk (*) is appended to the symbol in the "Symbol" column, that applies only to EP8015.

Symbol	Parts/Signal Name	Display Page	IC No.	Port No.	I/O	Operation Characteristics/ Panel Display		CN/PJ No.
						H or 1	L or 0	
M1	Paper Take-Up Motor/REM	6/8 (7/8)	IC2F	PE0	○	OFF	ON	PJ2F-2
↑	Paper Take-Up Motor/LOCK	6/8 (7/8)	IC2F	PE3	I	When stopped	When started	PJ2F-4
M1*	Paper Take-Up Motor	6/8 (7/8)	IC2F	PE0~ PE3	○	Pulse output		PJ18F-3~6
M2	Vertical Transport Motor	6/8 (7/8)	IC1F	PG2	○	Boost OFF	Boost ON	PJ17F-3~6
M3	Transport Motor	6/8 (7/8)	IC1F	PG3	○	Boost OFF	Boost ON	PJ16F-3~6
M4	Synchronizing Motor	2/8	IC3A	Ø0~3	○	Pulse output		PJ2A-2A~5A
M5	PC Drum Drive Motor/REM	2/8	IC4A	APB4	○	OFF	ON	PJ4A-10B
↑	PC Drum Drive Motor/LOCK	2/8	IC4A	APA4	I	When stopped	When started	PJ4A-12B
↑	PC Drum Drive Motor/TURN SWITCH	2/8	IC4A	APB5	○	Forward	Backward	PJ4A-11B
M6	Fusing Motor/REM	1/8	IC3A	BPA7	○	OFF	ON	PJ3A-1A
↑	Fusing Motor/LOCK	1/8	IC3A	APC2	I	When stopped	When started	PJ3A-2A
M7	Duplex Unit Drive Motor/REM	7/8	IC1G	PB3	○	OFF	ON	PJ6G-2
↑	Duplex Unit Drive Motor/LOCK	8/8	IC1G	PE1	I	When stopped	When started	PJ6G-1
M8	Fusing Unit Ventilation Fan Motor/REM	2/8	IC4A	BPA3	○	OFF	ON	PJ6A-1B
↑	Fusing Unit Ventilation Fan Motor/LOCK	2/8	IC4A	BPB1	I	When started	When stopped	PJ6A-3B
M9	Duplex Unit Gate Motor	8/8	IC1G	PG0~3	○	Pulse output		PJ5G-3~6
M10	Duplex Unit Front/Rear Edge Guide Drive Motor	8/8	IC1G	PF0~3	○	Pulse output		PJ4G-3~6
M11	Scanner Motor/SCAN	3/8 (4/8)	IC5A	BPA5	○	Stop	Scan	PJ18A-1
M14	Main Hopper Toner Replenishing Motor	1/8	IC3A	APC5	○	OFF	ON	PJ22A-7B
M15	Cleaning Web Drive Motor	2/8	IC4A	APB2	○	OFF	ON	PJ4A-8A

Symbol	Parts/Signal Name	Display Page	IC No.	Port No.	I/O	Operation Characteristics/ Panel Display		CN/PJ No.
						H or 1	L or 0	
M16	Sub Hopper Toner Replenishing Motor	1/8	IC3A	BPA4	○	OFF	ON	PJ22A-6B
M17	Optical Section Cooling Fan Motor/REM	2/8	IC4A	APB3	○	OFF	ON	PJ4A-7B
↑	Optical Section Cooling Fan Motor/LOCK	2/8	IC4A	APA3	|	When stopped	When started	PJ4A-9B
M18	Suction Fan Motor/REM	2/8	IC3A	BPB4	○	Half-speed rotation	Full-speed rotation	PJ3A-3A
↑	Suction Fan Motor/LOCK	1/8	IC3A	APC3	|	When started	When stopped	PJ3A-4A
M19	Ventilation Fan Motor/REM	2/8	IC3A	BPB5	○	OFF	ON	PJ3A-5A
↑	Ventilation Fan Motor/LOCK	2/8	IC4A	APA0	|	When stopped	When started	PJ3A-6A
M20	Toner Suction Fan Motor/REM	2/8	IC4A	BPA4	○	OFF	ON	PJ6A-7A
↑	Toner Suction Fan Motor/LOCK	2/8	IC4A	BPB2	|	When stopped	When started	PJ6A-9A
M21	PC Drum Charge Comb Cleaning Motor	1/8	IC3A	BPA2	○	OFF	ON	PJ23A-3B
M22	Image Transfer/Paper Separator Charge Wire Cleaning Motor	1/8	IC3A	BPA3	○	OFF	ON	PJ22A-5B
M23	1st Drawer Lift-Up Motor	5/8 (6/8)	IC2F	PA0 PA1	○ ○	Up –	– Up	PJ4F-1, 2 (PJ6F-1,2)
M24	2nd Drawer Lift-Up Motor	5/8 (6/8)	IC2F	PA2 PA3	○ ○	Up –	– Up	PJ4F-3, 4 (PJ6F-6, 7)
M27	3rd Drawer Elevator Motor	5/8 (6/8)	IC2F	PB0 PB1	○ ○	Up Down	Down Up	PJ5F-6, 7
M28	3rd Drawer Shift Motor	5/8 (6/8)	IC2F	PB2 PB3	○ ○	Transfer Return	Return Transfer	PJ5F-4, 5
M29	Power Supply Unit Cooling Fan Motor/REM	2/8	IC4A	APC1	○	OFF	ON	PJ5A-6A
↑	Power Supply Unit Cooling Fan Motor/LOCK	2/8	IC4A	APA7	|	When stopped	When started	PJ5A-8A
M30	Duplex Unit Turnover Motor	4/8	IC5A	00.1	○	Pulse output		PJ2A-12B, 13B
M31*	Developing Unit Cooling Fan Motor/REM	2/8	IC3A	BPB6	○	OFF	ON	PJ23A-4B
↑	Developing Unit Cooling Fan Motor/LOCK	2/8	IC4A	APA1	|	When stopped	When started	PJ23A-5B P
M33*	M11 Cooling Fan Motor/REM	2/8	IC4A	BPA7	○	OFF	ON	J4A-1B

Symbol	Parts/Signal Name	Display Page	IC No.	Port No.	I/O	Operation Characteristics/ Panel Display		CN/PJ No.
						H or 1	L or 0	
↑	M11 Cooling Fan Motor/LOCK	2/8	IC4A	APC7	I	When stopped	When started	PJ4A-3B
M34	Shift Gate Motor	6/8 (7/8)	IC2F	PH1	○	OFF	ON	PJ5F-2
SL1	Exit/Duplex Switching Solenoid	1/8	IC3A	BPA6	○	OFF	ON	PJ3A-7B
SL2	Duplex Unit Gate Switching Solenoid	8/8	IC1G	PH1	○	OFF	ON	PJ3G-5
SL3	Duplex Unit Paper Finger Solenoid	8/8	IC1G	PH0	○	OFF	ON	PJ3G-7
SL4	Duplex Unit Pick-Up Solenoid	7/8	IC1G	PB2	○	OFF	ON	PJ2G-12
SL5	Duplex Unit Leading Edge Solenoid	7/8	IC1G	PA3	○	OFF	ON	PJ2G-7
SL6	Separator Finger Solenoid	1/8	IC3A	APA5	○	OFF	ON	PJ23A-7A
SL7	3rd Drawer Lock Solenoid	6/8 (7/8)	IC2F	PG0	○	OFF	ON	PJ7F-2
SL8	Manual Feed Paper Pick-Up Solenoid/UP	2/8	IC4A	APB1	○	OFF	Up	PJ3A-5B
↑	Manual Feed Paper Pick-Up Solenoid/DOWN	2/8	IC4A	APB0	○	OFF	DOWN	PJ3A-6B
CL1	1st Drawer Paper Take-Up Clutch	6/8 (7/8)	IC1F	PG0	○	OFF	ON	PJ15F-2B
CL2	2nd Drawer Paper Take-Up Clutch	6/8 (7/8)	IC2F	PG2	○	OFF	ON	PJ14F-2B
SL3	3rd Drawer Paper Take-Up Clutch	6/8 (7/8)	IC2F	PG1	○	OFF	ON	PJ13F-2B
SL5	Manual Feed Paper Take-Up Clutch	2/8	IC4A	APC2	○	OFF	ON	PJ5A-5B
CL6	Duplex Unit Paper Take-Up Clutch	7/8	IC1G	PA2	○	OFF	ON	PJ2G-2
S3	Right Door Interlock Switch	1/8	IC3A	APB1	I	Open	Closed	PJ23A-7B
S4	Pre-Drive OFF Front Switch	1/8	IC3A	APC0	I	Open	Closed	PJ2A-12A
S5	Size Reset Switch	1/8	IC3A	APB6	I	Open	Closed	PJ22A-9B
S6	Sub Hopper Toner Empty Switch	2/8	IC4A	APA5	I	Toner loaded	Toner empty	PJ4A-9A
S9	Paper Size Detecting Switch FD1	6/8 (7/8)	IC2F	PF0	I	OFF	ON	PJ11F-9
S10	Paper Size Detecting Switch FD2	6/8 (7/8)	IC2F	PF1	I	OFF	ON	PJ11F-7
S11	Paper Size Detecting Switch FD3	6/8 (7/8)	IC2F	PF2	I	OFF	ON	PJ11F-5

Symbol	Parts/Signal Name	Display Page	IC No.	Port No.	I/O	Operation Characteristics/ Panel Display		CN/PJ No.
						H or 1	L or 0	
PC4	Original Cover Detecting Sensor	2/8	IC4A	BPB5	I	15° or more	Less than 15°	PJ7A-5A
PC5	Pre-Drive OFF Rear Sensor	4/8	IC5A	BPA5	I	Unblocked	Blocked	PJ17A-7
PC6	1st Drawer Paper Take-Up Sensor	6/8 (7/8)	IC1F	PC3	I	Paper not present	Paper present	PJ15F-2A
PC7	2nd Drawer Paper Take-Up Sensor	6/8 (7/8)	IC2F	PA2	I	Paper not present	Paper present	PJ14F-2A
PC8	3rd Drawer Paper Take-Up Sensor	6/8 (7/8)	IC2F	PC1	I	Paper not present	Paper present	PJ13F-2A
PC10	Vertical Transport Sensor 1	6/8 (7/8)	IC1F	PD0	I	Paper not present	Paper present	PJ15F-5A
PC11	Vertical Transport Sensor 2	6/8 (7/8)	IC2F	PA3	I	Paper not present	Paper present	PJ14F-5A
PC12	Vertical Transport Sensor 3	6/8 (7/8)	IC2F	PC2	I	Paper not present	Paper present	PJ13F-5A
PC14	1st Drawer Paper Lift-Up Sensor	6/8 (7/8)	IC1F	PD1	I	Not at upper limit	At upper limit	PJ15F-8A
PC15	2nd Drawer Paper Lift-Up Sensor	6/8 (7/8)	IC1F	PC0	I	Not at upper limit	At upper limit	PJ14F-8A
PC16	3rd Drawer Paper Lift-Up Sensor	6/8 (7/8)	IC2F	PC3	I	Not at upper limit	At upper limit	PJ13F-8A
PC18	1st Drawer Set Sensor	6/8 (7/8)	IC1F	PC1	I	Out of position	In position	PJ15F-5B
PC19	2nd Drawer Set Sensor	6/8 (7/8)	IC2F	PA0	I	Out of position	In position	PJ14F-5B
PC20	3rd Drawer Set Sensor	6/8 (7/8)	IC2F	PB3	I	Out of position	In position	PJ13F-5B
PC22	1st Drawer Paper Empty Sensor	5/8 (6/8)	IC1F	PC2	I	Paper not present	Paper present	PJ15F-6B
PC23	2nd Drawer Paper Empty Sensor	5/8 (6/8)	IC2F	PA1	I	Paper not present	Paper present	PJ14F-6B
PC24	3rd Drawer Paper Empty Sensor	6/8 (7/8)	IC2F	PC0	I	Paper not present	Paper present	PJ13F-6B
PC26	Transport Roller Sensor	1/8	IC3A	APC4	I	Paper not present	Paper present	PJ2A-7A
PC27	Paper Leading Edge Sensor	1/8	IC3A	APC5	I	Paper not present	Paper present	PJ2A-10A
PC28	Manual Feed Paper Empty Sensor	1/8	IC4A	APC6	I	Paper not present	Paper present	PJ5A-10A
PC29	Toner Collecting Bottle Set Sensor	6/8 (7/8)	IC2F	PF3	I	Out of position	In position	PJ11F-2
PC30	Toner Bottle Home Position Sensor	1/8	IC3A	APB5	I	Not at home	At home	PJ22A-11A
PC31	Upper Front Door Set Sensor	1/8	IC3A	APB4	I	Open	Closed	PJ2A-2B
PC32	Left Door Set Sensor	1/8	IC3A	APB3	I	Open	Closed	PJ2A-5B
PC33	Paper Exit Sensor	2/8	IC4A	BPB4	I	Paper not present	Paper present	PJ7A-2A

Symbol	Parts/Signal Name	Display Page	IC No.	Port No.	I/O	Operation Characteristics/ Panel Display		CN/PJ No.
						H or 1	L or 0	
PC34	Turnover Feed Sensor	1/8	IC3A	APC6	I	Paper not present	Paper present	PJ5A-13A
PC35	Duplex Unit Turnover Path Sensor	1/8	IC3A	APB2	I	Paper not present	Paper present	PJ5A-8B
PC36	Duplex Unit Paper Entry Sensor	8/8	IC1G	PC1	I	Paper not present	Paper present	PJ3G-2
PC37	Duplex Unit Paper Take-Up Sensor	8/8	IC1G	PC0	I	Paper not present	Paper present	PJ2G-9
PC38	Duplex Unit Paper Empty Sensor	8/8	IC1G	PC2	I	Paper not present	Paper present	PJ2G-4
PC39	Duplex Unit Front/Rear Edge Guide Plate Home Position Sensor	8/8	IC1G	PC3	I	Not at home	At home	PJ7G-5
PC40	Duplex Unit Gate Home Position Sensor	8/8	IC1G	PE0	I	Not at home	At home	PJ7G-2
PC41	3rd Drawer Tray Lower Position Sensor	3/8 (4/8)	IC5A	APB1	I	Not at lower limit	At lower limit	PJ9A-9 (PJ8A-9B)
PC42	3rd Drawer Main Tray Overrun Detecting Sensor	4/8	IC5A	BPA1	I	Not at overrun position	At overrun position	PJ9A-2 (PJ8A-2B)
PC43	3rd Drawer Shifter Home Position Sensor	3/8 (4/8)	IC5A	APB2	I	Not at home	At home	PJ9A-8 (PJ8A-8B)
PC44	3rd Drawer Shifter Return Position Sensor	3/8 (4/8)	IC5A	APB3	I	Not at return position	At return position	PJ9A-7 (PJ8A-7B)
PC45	3rd Drawer Shift Gate Position Sensor	6/8 (7/8)	IC2F	PD1	I	At advanced position	Not at advanced position	PJ5F-1
PC46	1st Drawer Lower Limit Position Sensor	(4/8)	IC5A	APA1	I	Not at lower limit	At lower limit	(PJ8A-3A)
PC47	2nd Drawer Lower Limit Position Sensor	(4/8)	IC5A	APA5	I	Not at lower limit	At lower limit	(PJ8A-9A)
PC48	Drum Charge Comb Cleaner Home Position Sensor	2/8	IC4A	BPB6	I	Not at home	At home	PJ7A-8A
PC49	Transfer/Separator Wire Cleaner Home Position Sensor	2/8	IC4A	APC5	I	Not at home	At home	PJ5A-2B
PC50	3rd Drawer Set Sensor	(6/8)	IC2F	PB3	I	Out of position	In position	PJ8F-2
PC51	1st Drawer Lift-Up Motor Pulse Sensor	3/8 (4/8)	IC5A	APA2	I	Blocked	Unblocked	PJ11A-2 (PJ8A-4A0

Symbol	Parts/Signal Name	Display Page	IC No.	Port No.	I/O	Operation Characteristics/ Panel Display		CN/PJ No.
						H or 1	**L or 0**	
PC52	2nd Drawer Lift-Up Motor Pulse Sensor	3/8 (4/8)	IC5A	APA6	I	Blocked	Unblocked	PJ11A-5 (PJ8A-10A)
PC55	3rd Drawer Elevator Motor Pulse Sensor	3/8 (4/8)	IC5A	APB5	I	Blocked	Unblocked	PJ9A-5 (PJ8A-5B)
PC56	3rd Drawer Shift Motor Pulse Sensor	3/8 (4/8)	IC5A	APB7	I	Blocked	Unblocked	PJ9A-3 (PJ8A-3B)
PC57	3rd Drawer Shift Tray Paper Empty Sensor	3/8 (4/8)	IC5A	APB6	I	Paper not present	Paper present	PJ9A-4 (PJ8A-4B)
PWB-E	3rd Drawer Main Tray Paper Empty Board	3/8 (4/8)	IC5A	APB4	I	Paper present	Paper not present	PJ9A-6 (PJ8A-6B)
PWB-E1	1st Drawer Paper Empty Board	(4/8)	IC5A	APA3	I	Paper present	Paper not present	(PJ8A-2A)
PWB-E2	2nd Drawer Paper Empty Board	(4/8)	IC5A	APA7	I	Paper present	Paper not present	(PJ8A-8A)
CNT1	Total Counter	1/8	IC3A	BPA1	○	OFF	Counting	PJ4A-12A
CNT2	Plug-In Counter (OP)/REM	3/8 (4/8)	IC5A	APC4	○	OFF	Counting	PJ13A-7
↑	Plug-In Counter (OP)/SET	4/8	IC5A	BPA4	I	Out of position	In position	PJ13A-7
SSR1	Upper Fusing Main Heater Lamp SSR	1/8	IC1A	P47	○	OFF	ON	PJ3A-8A
SSR2	Upper Fusing Sub Heater Lamp SSR	1/8	IC1A	P45	○	OFF	ON	PJ3A-2B
SSR3	Lower Fusing Heater Lamp SSR	1/8	IC1A	P44	○	OFF	ON	PJ3A-3B
LA2	Main Erase Lamp/REM	1/8	IC3A	APA4	○	OFF	ON	PJ23A-6A
↑	Main Erase Lamp/OUT DETECT	1/8	IC3A	APB7	I	Normal	Burn out detected	PJ23A-5A
LD1	Image Erase Lamp/SET	2/8	IC4A	APA2	I	Out of position	In position	PJ4A-5A
LD2	Pre-Image Transfer Erase Lamp	1/8	IC3A	APA7	○	OFF	ON	PJ23A-1B
LD3	Pre-Cleaning Erase Lamp	1/8	IC3A	APA6	○	OFF	ON	PJ23A-8A
RY1	Main Relay	1/8	IC1A	P51	○	OFF	ON	PJ5A-10B
TH1, TH2	Thermistor SET DETECT	1/8	IC3A	APB0	I	Out of position	In position	PJ21A-10
–	Duplex SET DETECT	4/8	IC5A	BPA7	I	Out of position	In position	PJ16A-7B
–	Sorter SET DETECT	4/8	IC5A	BPB1	I	Out of position	In position	PJ16A-2A
–	LCT SET DETECT	4/8	IC5A	BPB0	I	Out of position	In position	PJ16A-26B

C-302 for EP6001
C-303 for EP8015

Symbol	**Parts/Signal Name**	**Display Page**	**IC No.**	**Port No.**	**I/O**	**Operation Characteristics/ Panel Display**		**CN/PJ No.**
						H or 1	**L or 0**	
M1	Elevator Motor	8/8	IC1A	PH0 PH1	○ ○	Down Up	Up Down	PJ5A-3 PJ5A-1
PC1	Paper Raised Position Sensor	8/8	IC1A	PC0	I	Not at upper limit	At upper limit	PJ2A-8A
PC2	Paper Empty Sensor	8/8	IC1A	PC1	I	Paper present	Paper not present	PJ2A-8B
PC3	Set Sensor	8/8	IC1A	PC2	I	Out of position	In position	PJ2A-5B
PC4	Paper Feed Sensor	8/8	IC1A	PG0	I	Paper present	Paper not present	PJ2A-2B
PC5	Paper Cassette Door Sensor	8/8	IC1A	PG2	I	Out of position	In position	PJ2A-2A
PC6	Paper Plate Lowered Position Sensor	8/8	IC1A	PG3	I	Not at lower limit	At lower limit	PJ2A-5A
PWB-B	Paper Plate Lowered Position Sensor	8/8	IC1A	PG1	I	OFF	ON	PJ3A-2

* “IC2A” is shown on the control panel for the IC No. column.

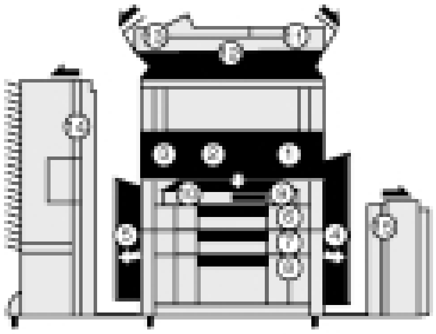
1161SBT0300A

3 PAPER TRANSPORT FAILURE

1161SBT0301A

3-1. Paper Misfeed

When a paper misfeed occurs, the Touch Panel shows the corresponding message, misfeed location and paper location.



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Blinking	Misfeed location
Lit	Paper location

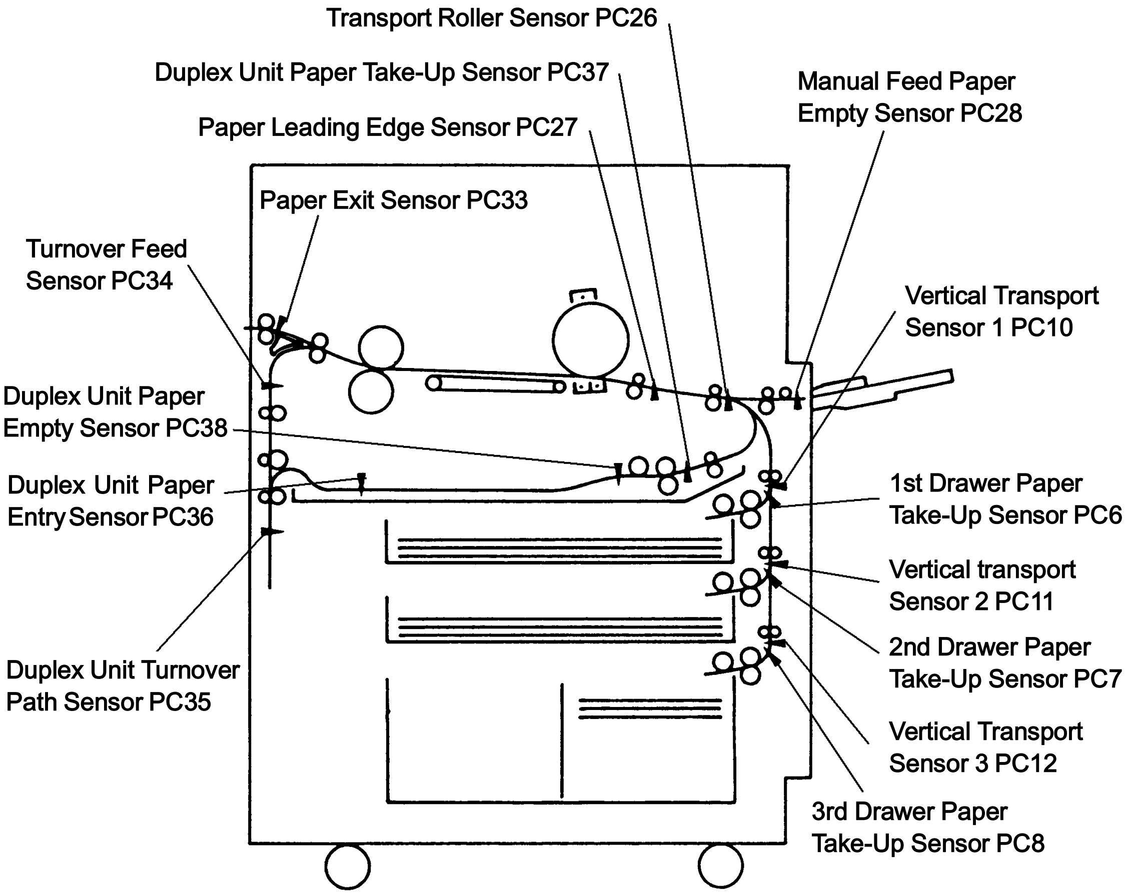
Blinking/Lit	Misfeed/Paper Location	Ref. Page	OP
①	Multi bypass take-up and copier transport	1)/3)	
②	Transport/Separator	2)	
③	Fusing/Exit and Copier Transport	4)	
④	Vertical Transport	1)	
⑤	Duplex Unit transport	5)	
⑥	1st Drawer take-up	1)	
⑦	2nd Drawer take-up	1)	
⑧	3rd Drawer take-up	1)	
⑨	Duplex Unit take-up	6)	
⑩	Duplex Unit storage	5)	
⑪	Automatic/Duplexing Document Feeder take-up	See the relevant option manual.	
⑫	Automatic/Duplexing Document Feeder transport		
⑬	Automatic/Duplexing Document Feeder turnover/exit		
⑭	Sorter		*
⑮	LCT		*

* When an option is installed.

<Misfeed display resetting method>

Misfeed in the copier	Open/close the Front Door.
Misfeed in the option	Open/close or re-connect the option.

<Misfeed Detection Sensor Layout>


Transport Roller Sensor PC26
Duplex Unit Paper Take-Up Sensor PC37
Paper Leading Edge Sensor PC27
Manual Feed Paper Empty Sensor PC28
Paper Exit Sensor PC33
Turnover Feed Sensor PC34
Vertical Transport Sensor 1 PC10
Duplex Unit Paper Empty Sensor PC38
Duplex Unit Paper Entry Sensor PC36
1st Drawer Paper Take-Up Sensor PC6
Vertical transport Sensor 2 PC11
2nd Drawer Paper Take-Up Sensor PC7
Duplex Unit Turnover Path Sensor PC35
Vertical Transport Sensor 3 PC12
3rd Drawer Paper Take-Up Sensor PC8

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1161SBT0302A

3-2. Types of Misfeed Detection and Detection Timings

* The timer values given in ( ) are for EP8015.

<Paper Take-Up Misfeed>

Type	Detection Timing
Paper take-up failure detection	Vertical Transport Sensor 1 PC10 is not blocked (L) approx. 4.0 (2.9) second after 1st Drawer Paper Take-Up Clutch CL1 is energized. Note: This also applies to the 2nd and 3rd Drawers.
Paper take-up trailing edge detection	Vertical Transport Sensor 1 PC10 is not unblocked even after the lapse of T (which varies depending on the paper size) after 1st Drawer Paper Take-Up Sensor PC6 has been blocked (L). Note: This also applies to the 2nd and 3rd Drawers.
Leading edge detection by Transport Roller Sensor PC26	PC26 is not blocked (L) approx. 1.0 (0.6) second after Vertical Transport Sensor 1 PC10 is blocked (L).
	PC26 is not blocked (L) approx. 1.3 (0.8) seconds after Vertical Transport Sensor 2 PC11 is blocked (L).
	PC26 is not blocked (L) approx. 1.6 (1.1) seconds after Vertical Transport Sensor 3 PC12 is blocked (L).

<Multi Bypass Misfeed>

Type	Detection Timing
Bypass paper take-up failure detection	Transport Roller Sensor PC26 is not blocked (L) approx. 4.1 (3.0) nsecond after Manual Feed Paper Take-Up Clutch CL5 is energized.

<Transport/Separator Misfeed>

Type	Detection Timing
Trailing edge detection by Transport Roller Sensor PC26	PC26 is not unblocked (L) "T" seconds (which depends on the paper size) after the TRON signal is input.
Leading edge detection by Paper Leading Edge Sensor PC27	PC27 is not blocked (L) approx. 0.9 (0.6) seconds after the Transport Roller Sensor PC26 is blocked (L).
Trailing edge detection by Paper Leading Edge Sensor PC27	PC27 is not unblocked (H) approx. 0.86 (0.57) seconds after the Transport Roller Sensor PC26 is unblocked (H).

<Fusing/Exit Misfeed>

Type	Detection Timing
Leading edge detection by Paper Exit Switch PC33	PC33 is not blocked (L) approx. 2.0 (1.3) seconds after the TRON signal is input.
Trailing edge detection by Paper Exit Switch PC33	PC33 is not unblocked (H) approx. 2.1 (1.4) seconds after Paper Leading Edge Sensor PC27 is unblocked (H).

<Duplex Unit Paper Take-Up Misfeed>

Type	Detection Timing
Leading edge detection by Turnover Feed Sensor PC34	PC34 is not blocked (L) approx. 2.2 (1.4) seconds after the TRON signal is input.
Trailing edge detection by Turnover Feed Sensor PC34	PC34 is not unblocked (H) approx. 1.5 (1.0) seconds after Paper Leading Edge Sensor PC27 is unblocked (H).
Leading edge detection by Duplex Unit Paper Entry Sensor PC36	PC36 is not blocked (L) within approx. 2.3 seconds (paper length of 301mm or more) or 1.9 seconds (paper length of 300mm or less) after Turnover Feed Sensor PC34 is blocked (L).
Trailing edge detection by Duplex Unit Paper Entry Sensor PC36	PC36 is not unblocked (H) within approx. (paper length/350) + 0.6 seconds after it has been blocked (L).
Duplex Unit paper take-up fault detection	The Duplex Unit Paper Take-Up Sensor PC37 is not blocked (L) within approx. 2 seconds after Duplex Unit Paper Take-Up Clutch CL6 has been energized.
Pre-fed paper take-up failure detection	PC37 is not blocked (L) within approx. 1.1 seconds after CL6 has been energized.
Trailing edge detection by Duplex Unit Paper Take-Up Sensor PC37	PC37 is not unblocked (H) within approx. (paper length/340) + 0.6 seconds after it has been blocked (L).

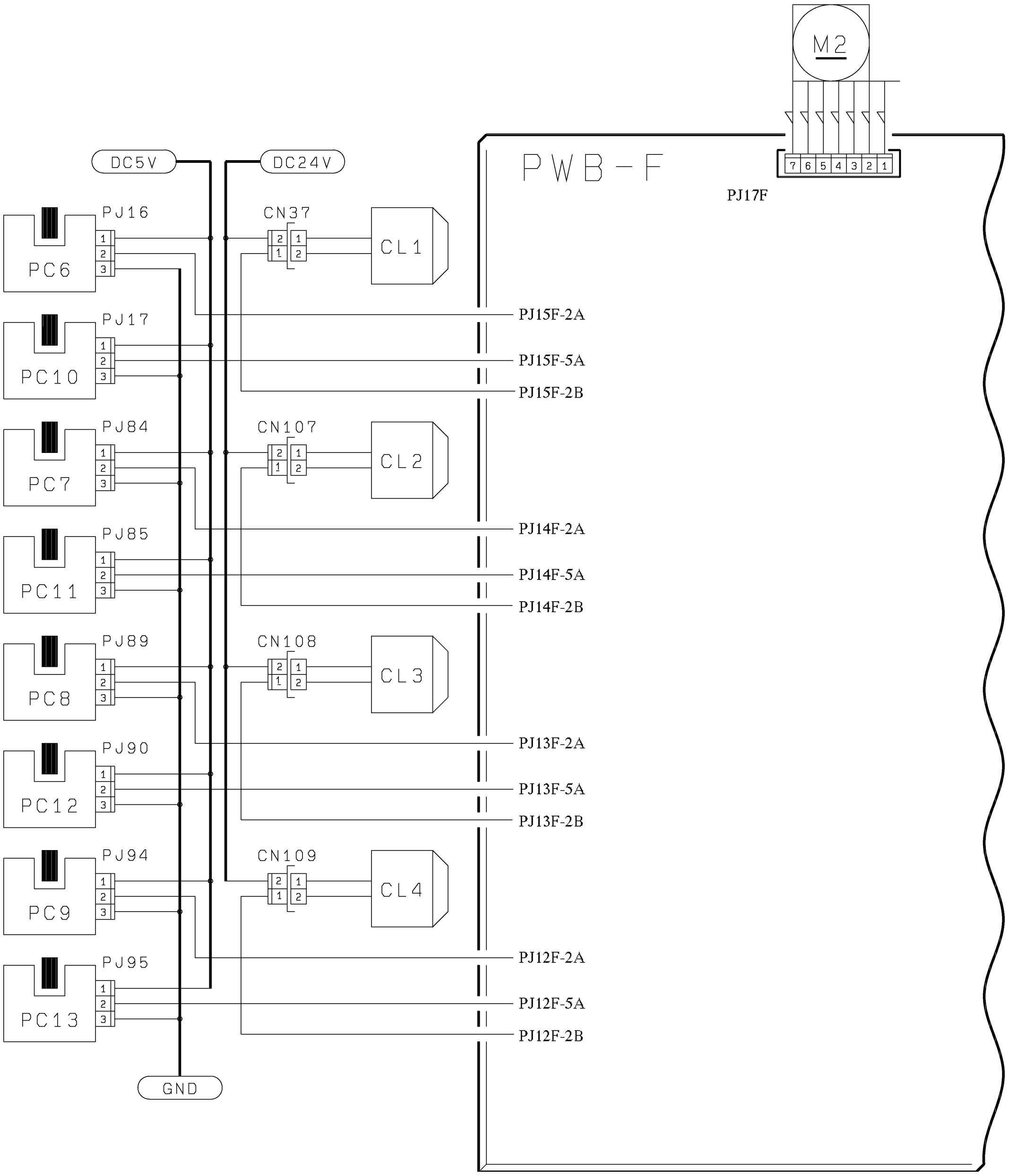
1161SBT0303A

3-3. Misfeed Clearing Procedures

1161SBT030301A

1) Copier Take-Up Misfeed

Relevant Electrical Parts	
● 1st Drawer Paper Take-Up Clutch CL1 ● 2nd Drawer Paper Take-Up Clutch CL2 ● 3rd Drawer Paper Take-Up Clutch CL3 ● Vertical Transport Motor M2 ● 1st Drawer Paper Take-Up Sensor PC6 ● 2nd Drawer Paper Take-Up Sensor PC7	● 3rd Drawer Paper Take-Up Sensor PC8 ● Vertical Transport Sensor 1 PC10 ● Vertical Transport Sensor 2 PC11 ● Vertical Transport Sensor 3 PC12 ● Master Board PWB-A ● Drawer S/P Board PWB-F


M2
PWB-F
7 6 5 4 3 2 1
PJ17F
DC5V
DC24V
PJ16
PC6
CN37
CL1
PJ17
PC10
PJ15F-2A
PJ15F-5A
PJ15F-2B
PJ84
PC7
CN107
CL2
PJ85
PC11
PJ14F-2A
PJ14F-5A
PJ14F-2B
PJ89
PC8
CN108
CL3
PJ90
PC12
PJ13F-2A
PJ13F-5A
PJ13F-2B
PJ94
PC9
CN109
CL4
PJ95
PC13
PJ12F-2A
PJ12F-5A
PJ12F-2B
GND

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<Copier Take-Up Misfeed Clearing Procedure>

Symptom	Step	Check Item	Result	Action
● Paper is not taken up at all. ● Paper is at a stop before the Vertical Transport Sensor.	1	Does the paper being used meet product specifications?	NO	Instruct the user to use the paper that meets product specifications.
	2	Is the paper curled, wavy or damp?	YES	Change the paper. Instruct the user on the storage of paper.
	3	Does the Paper (Length/Width) Guide (of the drawer) position match the paper used?	NO	Change the Guide mounting position.
	4	Are the Paper Take-Up Roll and Paper Separator Roll deformed, worn, or dirty with paper dust?	YES	Clean or change the Paper Take-Up Roll and/or Paper Separator Roll.
	5	— When the 1st Drawer is used — Check the operation of the Paper Take-Up Clutch CL1. 1) Remove the misfed paper and reset the misfeed. 2) Select "IC Port Data Check".	–	————
		3) Is the data of PG0 on PWB-F (IC1F) "1"?	NO	Change PWB-A or PWB-F.
		4) By pressing the "Change" key to change the data from "1" to "0", does CL1 operate? (Check that CL1 makes a sound.)	YES	Proceed to Step 6, or check PC6.
			NO	Change CL1.
	6	Is the Paper Take-Up Guide Plate dirty or deformed?	YES	Clean or change the Paper Take-Up Guide Plate.

Symptom	Step	Check Item	Result	Action
● Paper is at a stop before the Vertical Transport Sensor.	1	— When the 2nd Drawer is used — Check the operation of Paper Take-Up Clutch CL2. 1) Remove the misfed paper and reset the misfeed. 2) Select “IC Port Data Check”.	–	————
		3) Is the data of PG2 on PWB-F (IC2F) “1”?	NO	Change PWB-A or PWB-F.
		4) By pressing the “Change” key to change the data from “1” to “0”, does CL2 operate? (Check that CL2 makes a sound.)	YES	Proceed to Step 2, or check PC7.
			NO	Change CL2.
	2	Is the Paper Take-Up Guide Plate dirty or deformed?	YES	Clean or change the Paper Take-Up Guide Plate.
	1	— When the 3rd Drawer is used — Check the operation of Paper Take-Up Clutch CL3. 1) Remove the misfed paper and reset the misfeed. 2) Select “IC Port Data Check”.	–	————
		3) Is the data of PG1 on PWB-F (IC2F) “1”?	NO	Change PWB-F or PWB-A.
		4) By pressing the “Change” key to change the data from “1” to “0”, does CL3 operate? (Check that CL3 makes a sound.)	YES	Proceed to Step 2, or check PC8.
			NO	Change CL3.
	2	Is the Paper Take-Up Guide Plate dirty or deformed?	YES	Clean or change the Paper Take-Up Guide Plate.

Symptom	Step	Check Item	Result	Action
● Paper is at a stop in the Vertical Transport Section.	1	Are the Vertical Transport Rollers deformed, worn, or dirty with paper dust?	YES	Clean or change the Vertical Transport Rollers.
	2	Is the Paper Take-Up or Vertical Transport Guide Plate deformed or dirty?	YES	Clean, correct, or change.
	3	Does Vertical Transport Motor M2 rotate when the Start Key is turned ON?	YES	Check for overload.
			NO	Change PWB-F, PWB-A or M2.
	4	— When the 1st Drawer is used — Check 1st Drawer Paper Take-Up Sensor PC6 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	—
		3) Is the data of PC3 or PWB-F (IC1F) “ H ”.	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC6.	–	—
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PC3 changed from “ H ” to “ L ”?	NO	Change PC6.
	5	Check the Vertical Transport Sensor 1 PC10. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	—
		3) Is the data of PD0 on PWB-F (IC1F) “ H ”.	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC10.	–	—
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PD0 changed from “ H ” to “ L ”?	YES	Change PWB-F or PWB-A.
			NO	Change PC10.

Symptom	Step	Check Item	Result	Action
● Paper is at a stop in the Vertical Transport Section.	1	— When the 2nd Drawer is used — Check the 2nd Drawer Paper Take-Up Sensor PC7. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of PA2 on PWB-F (IC2F) “ H ”.	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC7.	–	————————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PA2 changed from “ H ” to “ L ”?	NO	Change PC7.
	2	Check the Vertical Transport Sensor 2 PC11. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of PA3 on PWB-F (IC2F) “ H ”.	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC11.	–	————————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PA3 changed from “ H ” to “ L ”?	YES	Change PWB-F or PWB-A.
			NO	Change PC11.
● Paper is at a stop in the Vertical Transport Section.	1	— When the 3rd Drawer is used — Check 3rd Drawer Paper Take-Up Sensor PC8. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of PC1 on PWB-F (IC2F) “ H ”.	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC8.	–	————————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PC1 changed from “ H ” to “ L ”?	NO	Change PC8.

Symptom	Step	Check Item	Result	Action
● Paper is at a stop in the Vertical Transport Section.	2	Check the Vertical Transport Sensor 3 PC12. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	
		3) Is the data of PC2 on PWB-F (IC2F) “ H ”.	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC12.	–	
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PC2 changed from “ H ” to “ L ”?	YES	Change PWB-F or PWB-A.
			NO	Change PC12.

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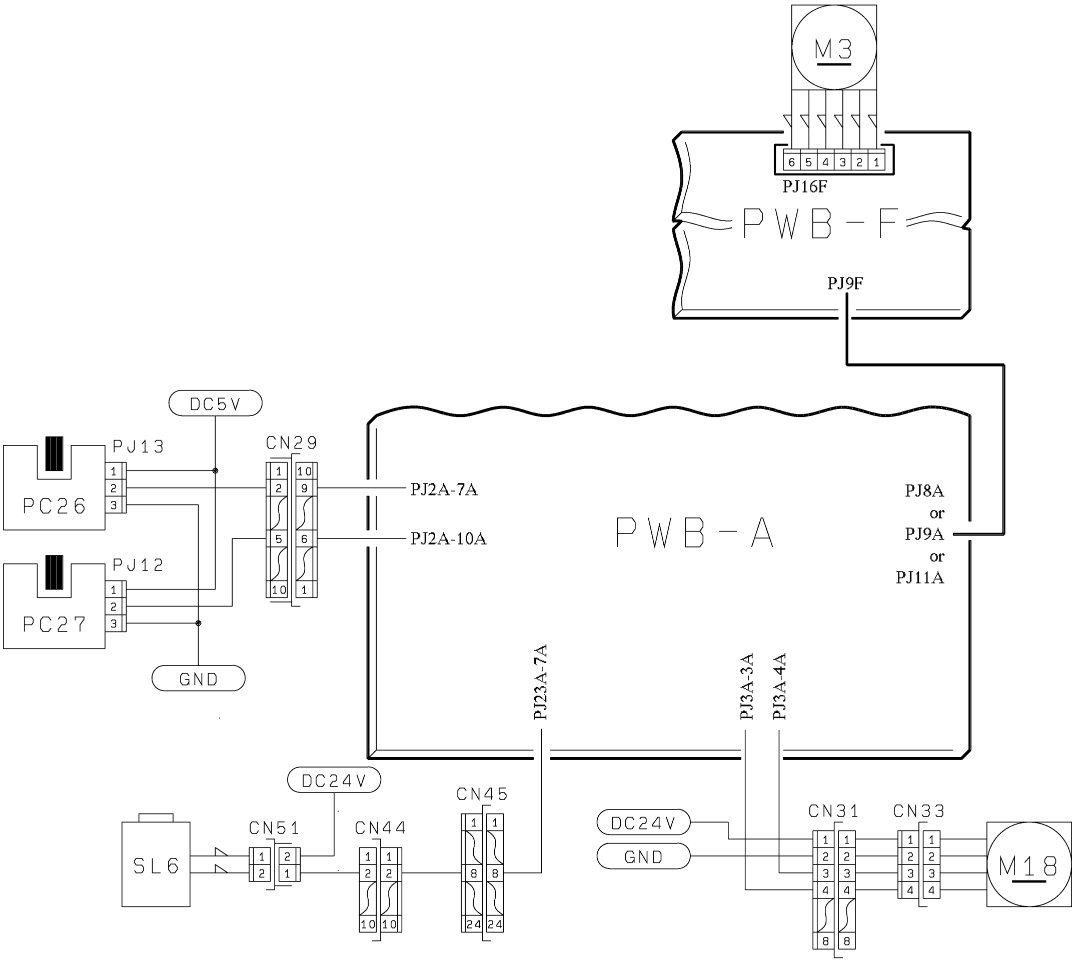
2) Transport/Separator Misfeed

Relevant Electrical Parts	
● Transport Motor M3 ● Suction Fan Motor M18 ● Transport Roller Sensor PC26 ● Paper Leading Edge Sensor PC27	● Separator Fingers Solenoid SL6 ● Master Board PWB-A ● Drawer S/P Board PWB-F


M3
6 5 4 3 2 1
PJ16F
PWB-F
PJ9F
DC5V
PJ13
CN29
PC26
PJ12
PC27
GND
PJ2A-7A
PJ2A-10A
PWB-A
PJ8A
or
PJ9A
or
PJ11A
PJ23A-7A
PJ3A-3A
PJ3A-4A
DC24V
CN45
CN51
CN44
SL6
DC24V
GND
CN31
CN33
M18

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<Transport/Separator Misfeed Clearing Procedure>

Symptom	Step	Check Item	Result	Action
● Paper is at a stop in the Transport Roller Section.	1	Are the Transport Rollers deformed, worn, or dirty with paper dust?	YES	Clean or change.
			YES	Check for overload.
	2	Does the Transport Motor M3 rotate when the Start Key is turned ON?	NO	Change PWB-F, PWB-A or M3.
	3	Check the Transport Roller Sensor PC26. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	—
		3) Is the data of APC4 on PWB-A (IC3A) “ H ”.	NO	Check the operation of the Actuator.
		4)_Operate the Actuator to block PC26.	–	—
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of APC4 changed from “ H ” to “ L ”?	YES	Change PWB-A.
			NO	Change PC26.
● Paper is at a stop at the Synchronizing Section.	1	Are the Synchronizing Rollers deformed, worn, or dirty with paper dust?	YES	Clean or change the Synchronizing Rollers.
	2	Is a proper length of loop formed before the Synchronizing Rollers?	NO	Select “Loop Adjust (Drawer)” or “Loop Adjust (Man/LCT)” in the Tech. Rep. Choice mode and adjust the length of the paper loop.
	3	Refer to Step 3 above and check Transport Roller Sensor PC26.	–	—
	4	Check Paper Leading Edge Sensor PC27. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	—
		3) Is the data of APC5 on PWB-A (IC3A) “ H ”.	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC27.	–	—
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of APC5 changed from “ H ” to “ L ”?	YES	Change PWB-A.
			NO	Change PC27.

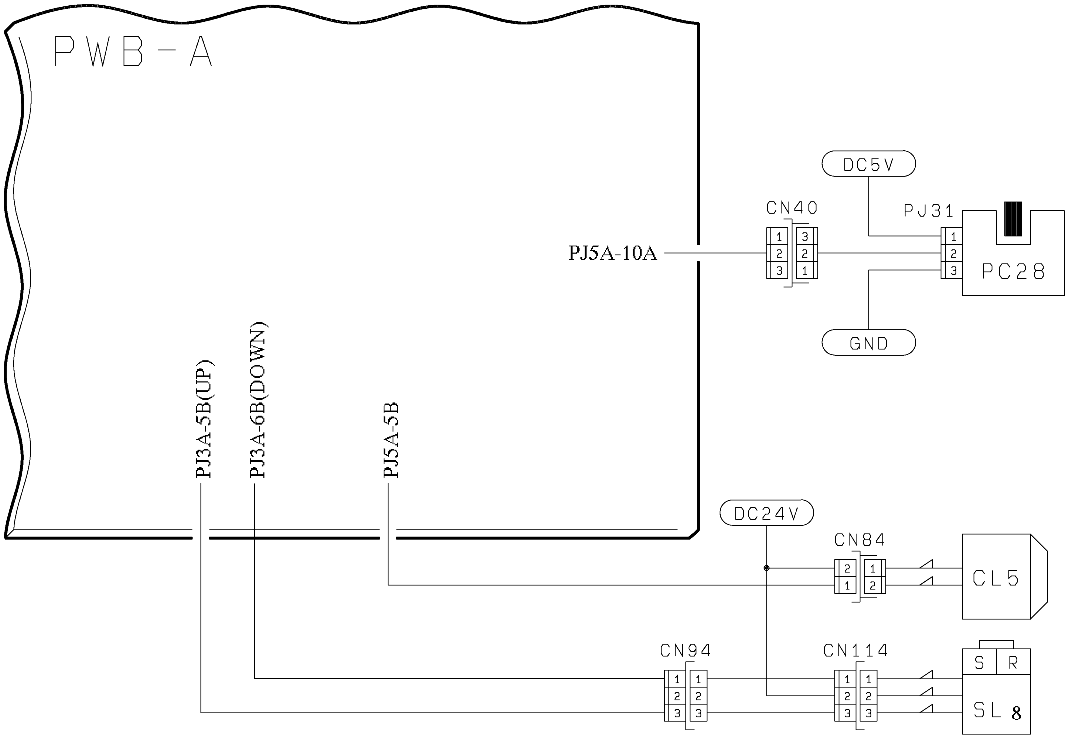
Symptom	Step	Check Item	Result	Action
● Paper is at a stop near the PC Drum.	1	Is the Pre-Image Transfer Guide Plate deformed or dirty?	YES	Clean, correct or change the Guide Plate.
	2	Are the Image Transfer/Paper Separator Corona Wires dirty or deteriorated?	YES	Clean or change the Corona Wires.
	3	Is the Paper Guide above the Paper Separator Corona dirty or deformed?	YES	Clean or change the Paper Guide.
	4	Are the Synchronizing Rollers deformed, worn, or dirty with paper dust?	YES	Clean or change the Synchronizing Rollers.
	5	Check the Paper Separator Corona Remote signal from PWB-A. Does the malfunction code “C0347” appear when a “Board Check” is made?	YES	Change PWB-A.
			NO	Change the Image Transfer/Paper Separator Coronas Unit or the High Voltage Unit HV2.
● Paper is wedged at the Drum Paper Separator Fingers.	1	Are the Drum Paper Separator Fingers dirty or deformed?	YES	Clean or change the Separator Fingers.
	2	Check the operation of the Separator Fingers Solenoid SL6. 1) Remove the misfed paper and reset the misfeed. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of APA5 on PWB-A (IC3A) “1”.	NO	Change PWB-A.
		4) By pressing the “Change” key to change the data from “1” to “0”, does SL6 operate? (Check that SL6 makes a sound.)	YES	Adjust the solenoid stroke.
		5) By making a “Board Check”, is the malfunction code “C0339” displayed?	YES	Change PWB-A.
			NO	Change SL6.

Symptom	Step	Check Item	Result	Action
● Paper is at a stop on the Suction Belts.	1	When the Main Drive Motor is run, do the Suction Belts turn?	NO	Check the drive gear and timing belt.
	2	Check whether the Suction Fan Motor M18 is switched from half speed to full speed when the Start Key is turned ON. 1) Remove the misfed paper and reset the misfeed. 2) Select “IC Port Data Check”.	–	———
		3) Is the data of BPB4 on PWB-A (IC3A) “1” when M18 is running at half speed?	NO	Change PWB-A.
		4) By pressing the “Change” key to change the data from “1” to “0”, is M18 switched from half speed to full speed?	NO	Check the Suction Belts.
		5) By making a “Board Check”, is the malfunction code “C0331” displayed?	YES	Change PWB-A.
			NO	Change M18.

1161SBM030303A

3) Multi Bypass Misfeed

Relevant Electrical Parts	
● Manual Feed Paper Take-Up Clutch CL5	● Manual Feed Paper Pick-Up Solenoid SL8
● Manual Feed Paper Empty Sensor PC28	● Master Board PWB-A


PWB-A
DC5V
CN40
PJ31
PJ5A-10A
PC28
GND
PJ3A-5B(UP)
PJ3A-6B(DOWN)
PJ5A-5B
DC24V
CN84
CL5
CN94
CN114
S
R
SL 8

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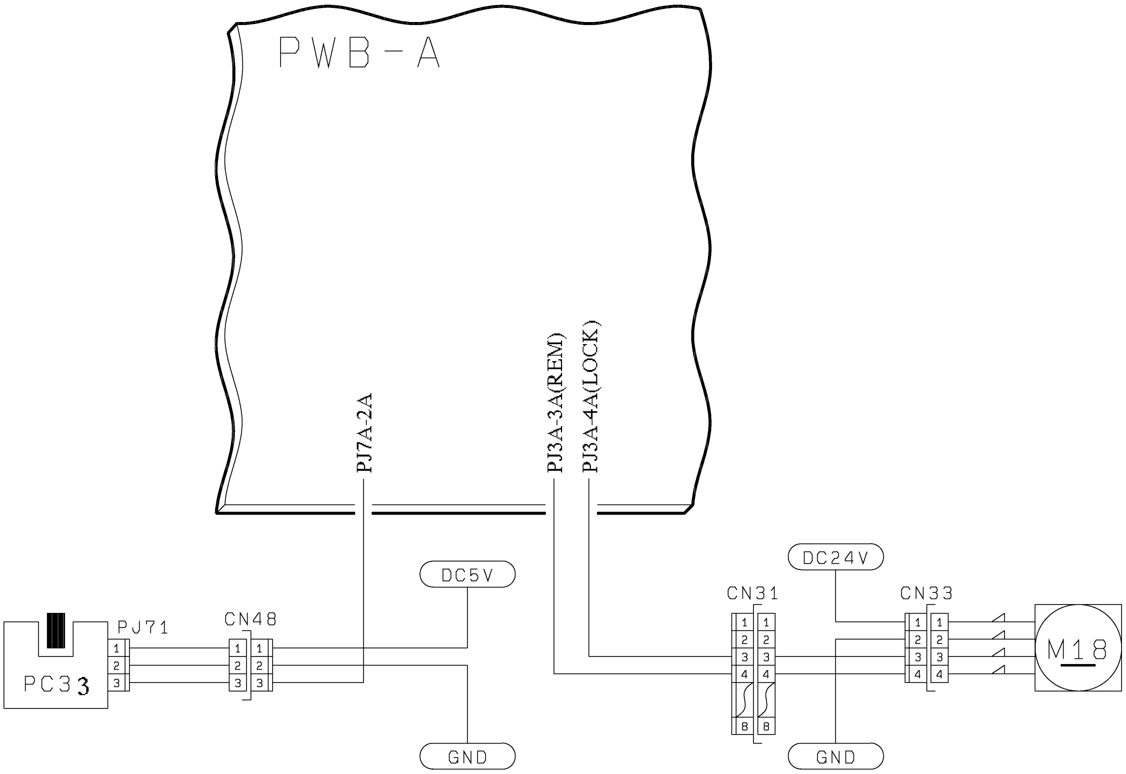
<Multi Bypass Misfeed Clearing Procedure>

Symptom	Step	Check Item	Result	Action
● Paper is not taken up at all.	1	Is the paper fed out of the copier properly when it is taken up and fed in from the copier drawer?	NO	Refer to the section on Copier Take-Up Misfeed.
	2	Is the Manual Feed indicator displayed on the screen when a sheet of paper is placed on the Multi Bypass Table.	YES	Go to Step 4.
	3	Check Manual Feed Paper Empty Sensor PC28. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of APC6 on PWB-A (IC4A) “ $\boxed{\text{H}}$ ” with no paper placed on the Multi Bypass Table?	NO	Check the operation of the Actuator.
		4) Place a sheet of paper on the Multi Bypass Table to block PC28.	–	————————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of APC6 changed from “ $\boxed{\text{H}}$ ” to “ $\boxed{\text{L}}$ ”?	YES	Change PWB-A.
			NO	Change PC28.
	4	Does the paper being used meet product specifications?	NO	Instruct the user to use the paper that meets product specifications.
	5	Is the paper curled, wavy or damp?	YES	Change the paper. Instruct the user on the storage of paper.

Symptom	Step	Check Item	Result	Action
● Paper is not taken up at all.	6	Check the operation of Manual Feed Paper Pick-Up Solenoid SL8. 1) Remove the misfed paper and reset the misfeed. 2) Select "IC Port Data Check".	–	————————
		3) Is the data of APB0 on PWB-A (IC4A) "1"?	NO	Change PWB-A.
		4) By pressing the "Change" key to change the data from "1" to "0", does SL8 operate to lower the Paper Take-Up Rolls?	YES	Go to Step 8.
		5) By making a "Board Check", is the malfunction code "C034D" displayed?	YES	Change PWB-A.
			NO	Change SL8 or adjust its stroke.
	7	Check the operation of Manual Feed Paper Take-Up Clutch CL5. 1) Remove the misfed paper and reset the misfeed. 2) Select "IC Port Data Check".	–	————————
		3) Is the data of APC2 on PWB-A (IC4A) "1"?	NO	Change PWB-A.
		4) By pressing the "Change" key to change the data from "1" to "0", does CL5 operate? (Check that CL5 makes a sound.)	YES	Go to Step 8.
		5) By making a "Board Check", is the malfunction code "C0343" displayed?	YES	Change PWB-A.
			NO	Change CL5.
	8	Are the Pressure Pad and Guide Plate dirty or deformed?	YES	Clean or change the Pressure Pad and Guide Plate.
	9	Are the Manual Feed Paper Take-Up Rolls deformed, worn, or dirty with paper dust?	YES	Clean or change the Manual Feed Take-Up Rolls.

4) Fusing/Exit Misfeed

Relevant Electrical Parts	
● Suction Fan Motor M18 ● Paper Exit Sensor PC33	● Master Board PWB-A


PWB-A
PJ7A-2A
PJ3A-3A(REM)
PJ3A-4A(LOCK)
DC5V
DC24V
PC33
PJ71
CN48
CN31
CN33
M18
GND
GND
1
2
3
4
8

1075C06TAA

<Fusing/Exit Misfeed Clearing Procedure>

Symptom	Step	Check Item	Result	Action
● Paper is at a stop before the Fusing Roller.	1	Is the Fusing Guide Plate dirty or deformed?	YES	Clean or change the Fusing Guide Plate.
	2	Refer to Section 3-2 “Transport/ Separator Misfeed” and check the Suction Fan Motor M18.	–	————————
● Paper is at a stop in the Fusing Roller Section.	1	Are the Fusing Rollers dirty or scratched?	YES	Clean or change the Fusing Rollers.
	2	Are the Fusing Roller Paper Separator Fingers dirty, worn or deformed?	YES	Clean or change the Paper Separator Fingers.
	3	Is the Oil Roller dirty?	YES	Clean or change the Oil Roller.
● Paper is at a stop in the Paper Exit Section.	1	Check the Paper Exit Sensor PC33. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of BPB4 on PWB-A (IC4A) “H”?	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC33.	–	————————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of BPB4 changed from “L” to “H”?	YES	Change PWB-A.
			NO	Change PC33.

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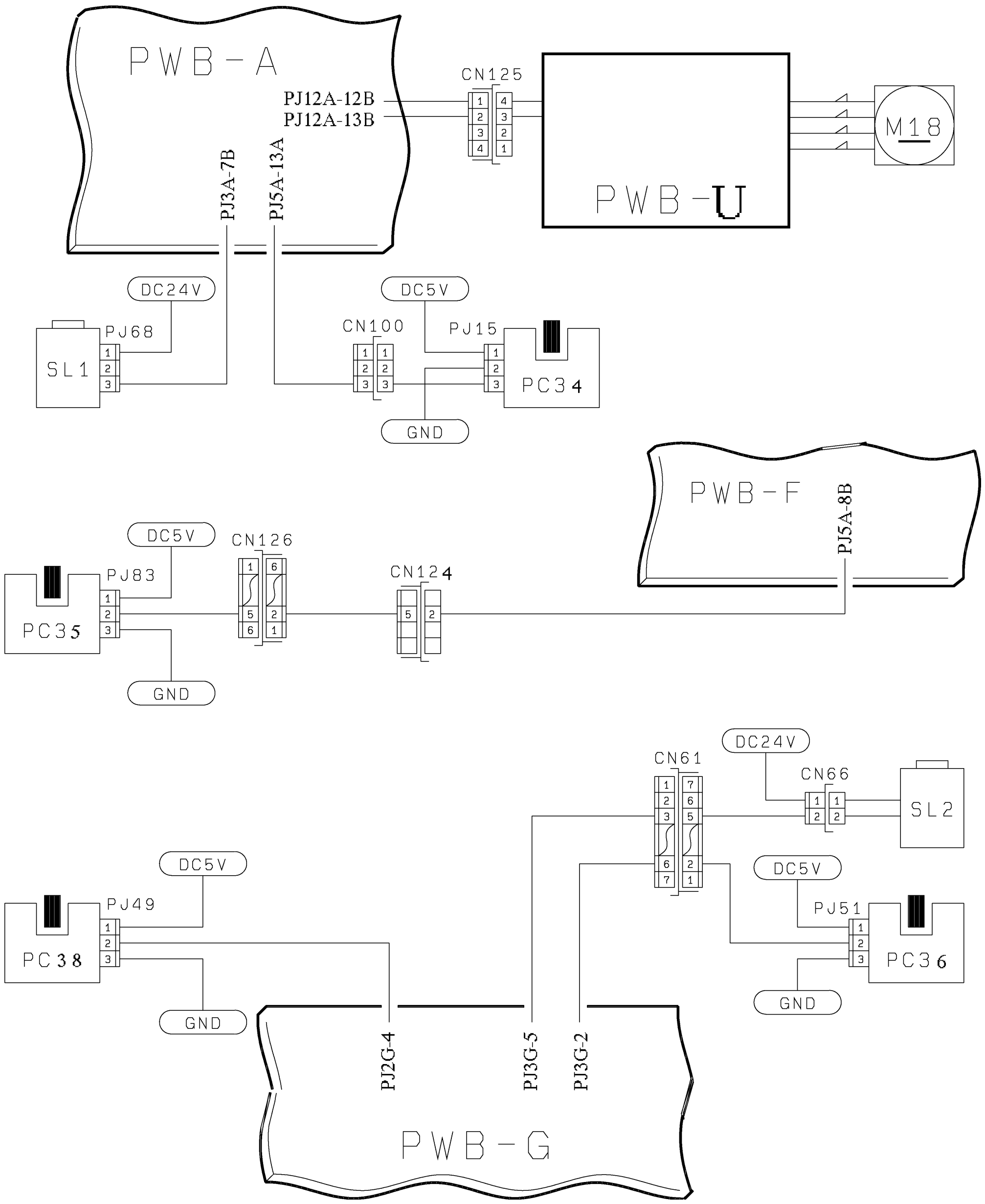
5) Duplex Unit Transport/Entry Misfeed

Relevant Electrical Parts	
● Turnover Feed Sensor PC34	● Master Board PWB-A
● Duplex Unit Paper Entry Sensor PC36	● Drawer S/P Board PWB-F
● Duplex Unit Turnover Path Sensor PC35	● Duplex Unit S/P Board PWB-G
● Duplex Unit Paper Empty Sensor PC38	● Duplex Unit Turnover Motor M30
● Exit/Duplex Switching Solenoid SL1	● M30 Drive Board PWB-U
● Duplex Unit Gate Switching Solenoid SL2	


PWB-A
CN125
PJ12A-12B
PJ12A-13B
1 2 3 4
4 3 2 1
M18
PWB-U
PJ3A-7B
PJ5A-13A
DC24V
DC5V
PJ68
SL1
1 2 3
CN100
PJ15
PC34
GND
PWB-F
PJ5A-8B
DC5V
CN126
PJ83
PC35
CN124
1 5 6
6 2 1
5 2
GND
CN61
DC24V
CN66
SL2
1 2 3 6 7
7 6 5 2 1
DC5V
PJ49
PC38
DC5V
PJ51
PC36
GND
GND
PJ2G-4
PJ3G-5
PJ3G-2
PWB-G

1075C07TAA

<Duplex Unit Vertical Transport Misfeed Clearing Procedure>

Symptom	Step	Check Item	Result	Action
● Paper is at a stop in the Exit Section.	1	Check the operation of the Exit/Duplex Switching Solenoid SL1. 1) Remove the misfed paper and reset the misfeed. 2) Select "IC Port Data Check".	–	———
		3) Is the data of BPA6 on PWB-A (IC3A) "1"?	NO	Change PWB-A.
		4) By pressing the "Change" key to change the data from "1" to "0", does SL1 operate? (Make sure that SL1 makes a sound.)	YES	Proceed to Step 2, or change SL1 or adjust its stroke.
		5) By making a "Board Check", is the malfunction code "C0333" displayed?	YES	Change PWB-A.
			NO	Change SL1.
	2	Are the Exit/Duplex Switching Plate and Upper and Lower Guide Plates dirty or deformed?	NO	Clean or change the Plates.
● Paper is at a stop in the Vertical Transport Section of the Duplex Unit.	1	Run the Duplex Unit Drive Motor M7 and check the operation of the Duplex Unit Vertical Transport Roll and Duplex Unit Drive Connection. 1) Open the left door. 2) Select "IC Port Data Check". 3) Press the "Change" key to change the data of PB3 on PWB-G (IC1G) from "1" to "0".	–	———
		4) Do the Duplex Unit Vertical Transport Roll and Duplex Unit Drive Connection operate properly?	NO	Check the gears, rollers and belts.
	2	Check the Turnover Feed sensor PC34. 1) Remove the misfed paper. 2) Select "IC Port Data Check".	–	———
		3) Is the data of APC6 ON PWB-A (IC3A) " H ".	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC34.	–	———
		5) Return to the "I/O Check" menu screen and select "IC Port Data Check" again. Has the data of APC6 changed from " H " to " L "?	YES	Change PWB-A.
			NO	Change PC34.

Symptom	Step	Check Item	Result	Action
● Paper is at a stop in the Turnover Section of the Duplex Unit.	1	Does Duplex Unit Turnover Motor M30 turn when a two-sided copy cycle is run?	NO	Change PWB-A, PWB-U, or M30.
	2	Is the Turnover Guide Plate dirty or deformed, or is the Turnover Roller dirty?	YES	Clean or change the Turnover Guide Plate or Turnover Roller.
	3	Check the Duplex Unit Turnover Path Sensor PC35. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	———————
		3) Is the data of APB2 on PWB-A (IC3A) “ $\boxed{H}$ ”?	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC35.	–	———————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of APB2 changed from “ $\boxed{H}$ ” to “ $\boxed{L}$ ”?	YES	Change PWB-A.
			NO	Change PC35.

<Duplex Unit Entry Misfeed Clearing Procedure>

Symptom	Step	Check Item	Result	Action
● The leading edge of the paper is at a stop inside the Duplex Unit.	1	Is the Paper Guide Mylar dirty or deformed?	YES	Clean or change the Mylar.
	2	Check the Duplex Unit Paper Entry Sensor PC36. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	———————
		3) Is the data of PC1 on PWB-G (IC1G) “ $\boxed{H}$ ”?	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC36.	–	———————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PC1 changed from “ $\boxed{H}$ ” to “ $\boxed{L}$ ”?	NO	Change PC36.
	3	Check the Duplex Unit Gate Switching Solenoid SL2. 1) Remove the misfed paper and reset the misfeed. 2) Select “IC Port Data Check”.	–	———————
		3) Is the data of PH1 on PWB-G (IC1G) “1”?	NO	Change PWB-G or PWB-A.
		4) By pressing the “Change” key to change the data from “1” to “0”, does SL2 operate? (Make sure that SL2 makes a sound.)	YES	Change PWB-G or PWB-A.
			NO	Change SL2 or adjust its stroke.
● Paper is at a stop in the Entry Section.	1	Check the Duplex Unit Paper Empty Sensor PC38. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	———————
		3) Is the data of PC2 on PWB-G (IC1G) “ $\boxed{H}$ ”?	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC38.	–	———————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PC2 changed from “ $\boxed{H}$ ” to “ $\boxed{L}$ ”?	YES	Change PWB-G or PWB-A.
			NO	Change PC38.

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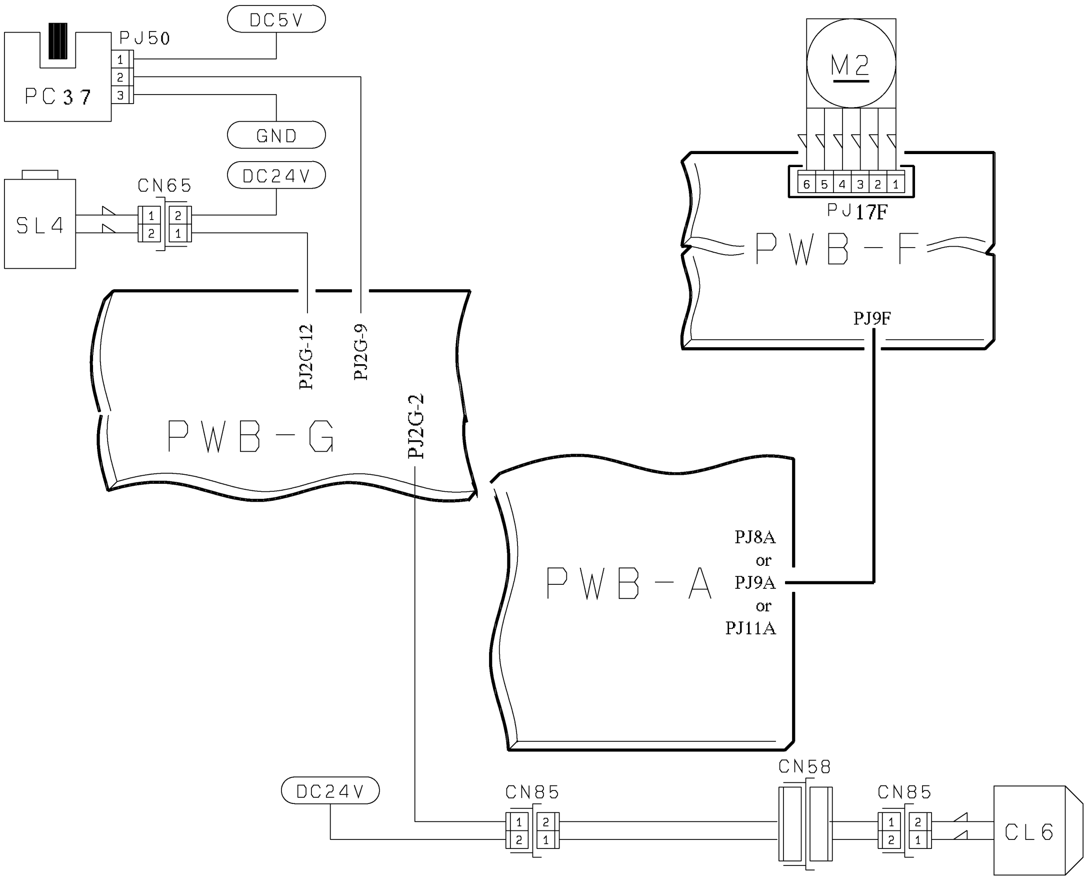
6) Duplex Unit Take-Up Misfeed

Relevant Electrical Parts	
● Duplex Unit Paper Take-Up Clutch CL6 ● Vertical Transport Motor M2 ● Duplex Unit Paper Take-Up Sensor PC37 ● Duplex Unit Paper Pick-Up Solenoid SL4	● Master Board PWB-A ● Drawer S/P Board PWB-F ● Duplex Unit S/P Board PWB-G


DC5V
PJ50
1
2
3
PC37
GND
DC24V
CN65
SL4
1
2
2
1
M2
6 5 4 3 2 1
PJ17F
PWB-F
PJ9F
PJ2G-12
PJ2G-9
PJ2G-2
PWB-G
PWB-A
PJ8A
or
PJ9A
or
PJ11A
DC24V
CN85
CN58
CN85
CL6

1075C08TAA

Symptom	Step	Check Item	Result	Action
● Paper is not taken up at all.	1	Are the Take-Up Roll, Feed Roll and Separator Roll deformed, worn, or dirty with paper dust?	YES	Clean or change the Rolls.
	2	Check the operation of the Duplex Unit Paper Pick-Up Solenoid SL4. 1) Remove the misfed paper and reset the misfeed. 2) Select “IC Port Data Check”	–	————————
		3) Is the data of PB2 on PWB-G (IC1G) “1”?	NO	Change PWB-G or PWB-A.
		4) By pressing the “Change” key to change the data from “1” to “0”, does SL4 operate? (Make sure that SL4 makes a sound.)	YES	Check the Pick-Up Mechanism, or adjust the SL4 stroke.
			NO	Change SL4.
	3	Check the operation of the Duplex Unit Paper Take-Up Clutch CL6. 1) Remove the misfed paper and reset the misfeed. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of PA2 on PWB-G (IC1G) “1”?	NO	Change PWB-G or PWB-A.
		4) By pressing the “Change” key to change the data from “1” to “0”, does CL6 operate? (Make sure that CL6 makes a sound.)	YES	Change PWB-G or PWB-A.
			NO	Change CL6.
● Paper is at a stop in the Vertical Transport Section.	1	Are the Vertical Transport Rollers and Guide Plate deformed, worn, or dirty with paper dust?	YES	Clean or change the Vertical Transport Rollers and Guide Plate.
	2	Is the Vertical Transport Motor M2 rotating when a copy is taken up and fed into the copier from the Duplex Unit?	YES	Check for overload.
			NO	Change PWB-F, PWB-A or M2
	3	Check the Duplex Unit Paper Take-Up Sensor PC37. 1) Remove the misfed paper. 2) Select “IC Port Data Check”.	–	————————
		3) Is the data of PC0 on PWB-G (IC1G) “ H ”?	NO	Check the operation of the Actuator.
		4) Operate the Actuator to block PC37.	–	————————
		5) Return to the “I/O Check” menu screen and select “IC Port Data Check” again. Has the data of PC0 changed from “ H ” to “ L ”?	YES	Change PWB-G or PWB-A.
			NO	Change PC37.

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4 MALFUNCTION

The copier CPU has a function to self-diagnose the copier conditions. On detection of a malfunction, the corresponding malfunction name, location and definition codes are shown on the Touch Panel of the copier together with a technical representative call message.

- Reset malfunctions and isolated malfunctions by the following procedures.

<Malfunction Resetting Procedure>

- Press the Trouble Reset Switch on the Tech. Rep. Settings Switches Board PWB-I for Exposure Lamp failures (C04**) and Fusing failures (C05**).
- Swing open and close the Front Door for any other malfunctions.
- Note that for malfunctions of original size detection, the Front Door should be opened and closed after the Power Switch is turned OFF and ON. Then, run the F7 operation.
- Disconnect and connect the option or open and close the option door for malfunctions of options. (The LCT may be reset by opening and closing the Front Door.)

<Isolated Malfunction Resetting Procedure>

- Touch the wrench mark (🔧) at the bottom left corner on the Basic screen. Or select “Machine Status” in the Tech. Rep. mode. With the malfunction code displayed, swing open and close the Front Door.
- For malfunctions of original size detection, turn the Power Switch OFF and ON, and select “Machine Status” in the Tech. Rep. mode. With the malfunction code displayed, swing open and close the Front Door.

1161SBM0401A

4-1. Detection Timing

- The codes preceded by * apply to isolated malfunctions.

Copier-related malfunctions

C00** (Drive system malfunctions)

*	Code	Description	Detection Timing
	C0000	Fusing Motor M6's failure to turn	The Fusing Motor Lock signal remains HIGH for a continuous 1.5-second period after M6 has been energized.
	C0001	Fusing Motor M6 turning at abnormal timing	The Fusing Motor Lock signal remains LOW for a continuous 1-second period after M6 has been deenergized.
	C0010	PC Drum Drive Motor M5's failure to turn	The PC Drum Drive Motor Lock signal remains HIGH for a continuous 1.5-second period after M5 has been energized.
	C0011	PC Drum Drive Motor M5 turning at abnormal timing	The PC Drum Drive Motor Lock signal remains LOW for a continuous 1-second period after M5 has been deenergized.
	C0020	Paper Take-Up Motor M1's failure to turn	The Paper Take-Up Motor Lock signal remains HIGH for a continuous 1-second period after M1 has been energized.
	C0021	Paper Take-Up Motor M1 turning at abnormal timing	The Paper Take-Up Motor Lock signal remains LOW for a continuous 5-second period after M1 has been deenergized.
	C0040	Suction Fan Motor M18's failure to turn	The PC Drum Motor Lock signal remains HIGH for a continuous 2-second period after M18 has been energized.
	C0042	Toner Suction Fan Motor M20's failure to turn	The Toner Suction Fan Motor Lock signal remains HIGH for a continuous 4-second period after M20 has been energized.
	C0043	Toner Suction Fan Motor M20 turning at abnormal timing	The Toner Suction Fan Motor Lock signal remains LOW for a continuous 10-second period after M20 has been deenergized.
	C0046	Fusing Unit Ventilation Fan Motor M8's failure to turn	The Fusing ventilation Fan Motor Lock signal remains HIGH for a continuous 4-second period after M8 has been energized.
	C0047	Fusing Unit Ventilation Fan Motor M8 turning at abnormal timing	The Fusing ventilation Fan Motor Lock signal remains LOW for a continuous 10-second period after M8 has been deenergized.

C00** (Drive system malfunctions)

*	Code	Description	Detection Timing
	C004A	Optical Section Cooling Fan Motor M17's failure to turn	The Optical Section Cooling Fan Motor Lock signal remains HIGH for a continuous 2-second period after M17 has been energized.
	C004b	Optical Section Cooling Fan Motor M17 turning at abnormal timing	The Optical Section Cooling Fan Motor Lock signal remains LOW for a continuous 10-second period after M17 has been deenergized.
	C004c	Ventilation Fan Motor M19's failure to turn	The Ventilation Fan Motor Lock signal remains HIGH for a continuous 3-second period after M19 has been energized.
	C004d	Ventilation Fan Motor M19 turning at abnormal timing	The Ventilation Fan Motor Lock signal remains LOW for a continuous 10-second period after M19 has been deenergized.
	C004E	Power Supply Unit Cooling Fan Motor M29's failure to turn	The Power Supply Unit Cooling Fan Motor Lock signal remains HIGH for a continuous 3.7-second period after M29 has been energized.
	C004F	Power Supply Unit Cooling Fan Motor M29 turning at abnormal timing	The Power Supply Unit Cooling Fan Motor Lock signal remains LOW for a continuous 10-second period after M29 has been deenergized.
	C0070	Main Hopper Toner Replenishing Motor M14's failure to turn	The output from the Toner Bottle Home Position Sensor PC30 does not go HIGH within 5 seconds after M14 has been energized.
			The output from PC30 does not go Low within 10 seconds after it has gone HIGH following the energization of M14.
	C0071	Main Hopper Toner Replenishing Motor M14 turning at abnormal timing	The PC30 output goes HIGH 2 seconds after M14 has been deenergized.
	C0072	Sub Hopper Toner Replenishing Motor M15's failure to turn	When the current toner-to-carrier ratio is 2% lower than the "T/C control level set by AIDC Sensor control" and the Add Toner Indicator is not lit on the control panel, a toner replenishing sequence is carried out (M15 is turned); the toner- to-carrier ratio does not increase by 1% within 150 seconds.

C01** (PC Drum Charge, Image Transfer/Paper Separator Corona cleaning malfunctions)

*	Code	Description	Detection Timing
	C0100	PC Drum Charge Comb Cleaning Motor M21's failure to turn	The output from the Drum Comb Cleaner Home Position Sensor PC48 does not go HIGH 7 seconds after M21 has started forward rotation (cleaning).
			The output from PC48 does not go LOW 20 seconds after M21 has started backward rotation (return to home position).
	C0110	Image Transfer/Paper Separator Charge Wire Cleaning Motor M22's failure to turn	The output from the Transfer Separator Wire Cleaner Home Position Sensor PC49 does not go HIGH 7 seconds after M22 has started forward rotation (cleaning).
			The output from PC49 does not go LOW 20 seconds after M22 has started backward rotation (return to home position).

C02** (PC Drum Charge, Image Transfer/Paper Separator Coronas malfunctions)

*	Code	Description	Detection Timing
	C0200	PC Drum Charge Corona failure	The Short Circuit Detection signal (SCD1) does not go LOW for a continuous 1-second period while the PC Drum Charge Corona is ON.
	C0210	Image Transfer/Paper Separator Corona failure	The Short Circuit Detection signal (SCD2) remains LOW for a continuous 2-second period while the Image Transfer/Paper Separator Coronas are ON.

C03** Master Board/Harness Malfunctions

- The copier performs a self-diagnostic sequence to determine if the microprocessor outputs a signal to each of the IC ports on Master Board PWB-A properly. It is intended for detecting the following malfunctions (C03**). If the microprocessor fails to output any of these signals or if any of the electronic components on the board (driver IC, etc.) is faulty, the copier determines that there is a faulty condition existing and shows the corresponding malfunction code on the Touch Panel.
- C0370/C0371 (serial communications data) checks to see if the output signal from PWB-A is actually transmitted to PWB-F and returned back to PWB-A.
- C0373 (serial communications data) checks to see if the output signal from PWB-A is actually transmitted to PWB-A of the LCT and returned back to PWB-A.

*	Code	Description (I/O signal failure)	Master Board Port	Detection Timing
	C0300	Port diagnosis cannot be started.		● When "Control Board Check" of "I/O Check" under the Tech. Rep. mode is executed.
	C0310	Lower Fusing Roller Heater Lamp H3 sub REM	IC1A P43	● When "Control Board Check" of "I/O Check" under the Tech. Rep. mode is executed.
	C0311	Lower Fusing Roller Heater Lamp H3 REM	IC1A P44	
	C0312	Upper Fusing Roller Sub Heater Lamp H2 REM	IC1A P45	
	C0313	Upper Fusing Roller Main Heater Lamp H1 sub REM	IC1A P46	
	C0314	Upper Fusing Roller Main Heater Lamp H2 REM	IC1A P47	
	C0315	AE Sensor gain	IC1A P60	
	C0316	Synchronizing Motor M4 0	IC3A 0	
	C0317	Synchronizing Motor M4 1	IC3A 1	
	C0318	Synchronizing Motor M4 2	IC3A 2	
	C0319	Synchronizing Motor M4 3	IC3A 3	

*	Code	Description (I/O signal failure)	Master Board Port	Detection Timing
	C031A	Image Erase Lamp LD1 STROBE	IC3A BPB3	- When "Control Board Check" of "I/O Check" under the Tech. Rep. mode is executed.
	C031B	Image Erase Lamp LD1 CLK	IC3A BPB2	
	C031C	Image Erase Lamp LD1 LATCH	IC3A BP1	
	C031D	Image Erase Lamp LD1 DATA	IC3A BPB0	
	C031E	Image Transfer/Paper Separator Charge Wire Cleaning Motor M22 REM	IC3ABPA3	
	C031F	PC Drum Charge Comb Cleaning Motor M21 REM	IC3ABPA2	
	C0320	Image Transfer/Paper Separator Charge Wire Cleaning Motor M22 0	IC4A	
	C0321	Image Transfer/Paper Separator Charge Wire Cleaning Motor M22 1	IC4A	
	C0322	Image Transfer/Paper Separator Charge Wire Cleaning Motor M22 2	IC4A	
	C0323	Image Transfer/Paper Separator Charge Wire Cleaning Motor M22 3	IC4A	
	C0324	Duplex turnover ENABLE	IC4A BPC3	
	C0325	Original size SIM1	IC4A BPC2	
	C0326	Original size SIM2	IC4A BPC1	
	C0327	Original size INT	IC4A BPC0	
	C0328	AVR REM	IC4A BPA6	
	C0329	Duplex Unit Turnover Motor M30 0	IC5A OUT0	
	C032A	Duplex Unit Turnover Motor M30 1	IC5A OUT1	
	C032B	Copy vendor (size)	IC5A BPC3	
	C032C	Copy vendor (copy)	IC5A BPC2	
	C032D	SCEND signal	IC5A APC7	
	C032E	ENABLE signal	IC5A APC7	
	C032F	SCAN signal	IC5A APC6	
	C0330	M11 current switching	IC5A APC5	
	C0331	Suction Fan Motor M18 REM	IC3A BPB4	
	C0332	Fusing Motor M6 REM	IC3A BPA7	
	C0333	Exit/Duplex Switch Solenoid SL1 REM	IC3A BPA6	
	C0334	Main Hopper Toner Replenishing Motor M14 REM	IC3A BPA5	
	C0335	Cleaning Web Drive Motor M16 REM	IC3A BPA4	
	C0336	Seal bias REM	IC3A BPA0	
	C0337	Pre-Image Transfer Erase Lamp LD2 REM	IC3A APA7	
	C0338	Pre-Cleaning Erase Lamp LD3 REM	IC3A APA6	

*	Code	Description (I/O signal failure)	Master Board Port	Detection Timing
	C0339	Separator Finger Solenoid SL6 REM	IC3A APA5	● When “Control Board Check” of “I/O Check” under the Tech. Rep. mode is executed.
	C033A	Main Erase Lamp LA2 REM	IC3A APA4	
	C033B	M11 Cooling Fan Motor M33 REM	IC4A BPA7	
	C033C	N/A	IC4ABPA5	
	C033D	Toner Suction Fan Motor M20 REM	IC4A BPA4	
	C033E	Fusing Unit Ventilation Fan Motor M8 REM	IC4A BPA3	
	C033F	DC bias	IC4A BPA2	
	C0340	Pre-Image Transfer Charge Corona REM	IC4A BPA1	
	C0341	PC Drum Charge Corona REM	IC4A BPA0	
	C0342	Dehumidifying Heater OFF	IC4A APC3	
	C0343	Manual Feed Paper Take-Up Clutch CL5 REM	IC4A APC2	
	C0344	Power Supply Unit Cooling Fan Motor M29 REM	IC4A APC1	
	C0345	Separator output switching	IC4A APC0	
	C0346	Image Transfer Corona REM	IC4A APB7	
	C0347	Paper Separator Corona REM	IC4A APB6	
	C0348	PC Drum Drive Motor M5 forward/backward rotation switching	IC4A APB5	
	C0349	PC Drum Drive Motor M5 REM	IC4A APB4	
	C034A	Optical Section Cooling Fan Motor M17 REM	IC4A APB3	
	C034B	Sub Hopper Toner Replenishing Motor M15 REM	IC4A APB2	
	C034C	Manual Feed Paper Pick-Up Solenoid SL8 UP	IC4A APB1	
	C034D	Manual Feed Paper Pick-Up Solenoid SL8 DOWN	IC4A APB0	
*	C0350	Serial communications output data PWB-F	IC4A SO0	● When Power Switch ON.
*	C0351	Serial communications output data PWB-F	IC4A SO1	
*	C035	Serial communications output data PWB-G	IC4A SO2	
*	C0353	Serial communications output data LCT	IC5A SO3*	
*	C0370	Serial communications input data PWB-F	IC4A SI0	
*	C0371	Serial communications input data PWB-F	IC4A SI1	
*	C0373	Serial communications input data LCT	IC5A SI3*	

* IC4A for EP8015

C04** (Exposure Lamp malfunctions)

*	Code	Description	Detection Timing
	C0400	Exposure Lamp LA1's failure to turn ON	The output from the AE Sensor Board PWB-H does not become 4.27V or less from when LA1 turns ON and the Scanner starts a scan motion until when the Image Leading Edge signal (IMAGE) turns ON (goes LOW).
	C0410	Exposure Lamp LA1 turning ON at abnormal timing	The output from PWB-H remains 3.9V or less for a continuous 3-second period while the output from the Scanner Reference Position Sensor PC1 remains LOW.
			The output from PWB-H remains 3.9V or less for a continuous 3-second period while the output from the Size Reset Switch S5 remains LOW (i.e. while the Original Cover remains closed) and PC1 remains HIGH.

C05** (Fusing Unit malfunctions)

*	Code	Description	Detection Timing
	C0500	Warming-up failure (Upper Fusing Heater failure)	● After the Power Switch S1 has been turned ON or the corresponding door opened and closed after troubleshooting, the surface temperature of the Upper Fusing Roller does not reach: * 60°C within 130 seconds. * 120°C within 150 seconds after it has reached 60°C. * 170°C within 140 seconds after it has reached 120°C. * 200°C within 180 seconds after it has reached 170°C. (EP8015 : 210°C) * 200°C within 120 seconds after the copier has left the Energy Saver mode. (EP8015 : 210°C)
	C0510	Abnormally low fusing temperature (Upper Fusing Heater failure)	The surface temperature of the Upper Fusing Roller remains 140°C or less for a continuous 5-second period after the copier has warmed up.
	C0511	Abnormally low fusing temperature (Lower Fusing Heater failure)	The surface temperature of the Lower Fusing Roller remains 50°C or less for a continuous 15-minute period after the copier has warmed up.

C05** (Fusing Unit malfunctions)

*	Code	Description	Detection Timing
	C0520	Abnormally high fusing temperature (Upper Fusing Heater Lamp turning ON at abnormal timing)	The surface temperature of the Upper Fusing Roller remains 225°C or more for a continuous 5-second period after the copier has warmed up.
	C0521	Abnormally high fusing temperature (Lower Fusing Heater Lamp turning ON at abnormal timing)	The surface temperature of the Lower Fusing Roller remains 220°C or more for a continuous 5-second period after the copier has warmed up.
	C0540	Fusing Roller Thermistor loading malfunction	The Connector Setting signal remains HIGH for a continuous 2-second period.

C06** (Optical Section malfunctions)

*	Code	Description	Detection Timing
	C0600	Scanner Motor M11 malfunction	When an attempt is made to turn M11 backward with no encoder pulses input to UN2 for 100 to 130 msec. while M11 is turning, UN2 does not output a signal.
	C0601	SPC Bord UN2 malfunction	When an attempt is made to turn M11 backward with no encoder pulses input to UN2 for 100 to 130 msec. while M11 is turning, UN2 does not output a signal.
	C0610	Lens X-direction motion failure	The output from the Lens X-Direction Reference Position Sensor PC2 does not go from HIGH to LOW or from LOW to HIGH a given period of time after the Lens X-Direction Drive Motor M12 has started.
	C0611	Lens Y-direction motion failure	The output from the Lens Y-Direction Reference Position Sensor PC3 does not go from HIGH to LOW or from LOW to HIGH a given period of time after the Lens Y-Direction Drive Motor M13 has started.
	C0650	Scanner Reference Position Sensor PC1 malfunction	<At the start of the Scanner's scan motion> PC1 is not unblocked (H) after a given period of time has elapsed. <At the end of the Scanner's return motion> PC1 is not blocked (L) after a given period of time has elapsed.

C06** (Optical Section malfunctions)

*	Code	Description	Detection Timing
	C06F0	SHOME signal failure (SHOME does not go LOW)	● The IMAGE signal does not go LOW 5 seconds after the SCEND signal has gone from LOW to HIGH.
	C06F1	SHOME signal failure (SHOME does not go HIGH)	When the SHOME signal is LOW, it does not go HIGH even after the lapse of 5 sec. after a Scan Request signal has been output.
	C06F7	SCEND signal failure (SCEND does not go HIGH)	The SCEND signal does not go HIGH 5 seconds after it has gone LOW.
	C06F8	IMAGE signal failure (IMAGE does not go LOW)	● When the SHOME signal is LOW, the IMAGE signal does not go LOW within 5 sec. after the SHOME signal has gone HIGH following the output of a Scan Request signal. ● When the SHOME signal is HIGH, the IMAGE signal does not go LOW within 5 sec. after the Scan Request signal has been output.
	C06F9	IMAGE signal failure (IMAGE does not go HIGH)	The IMAGE signal does not HIGH 5 seconds after it has gone LOW.

C07** ADF Malfunctions

*	Code	Description	Detection Timing
*	C0700	Defective Document Moving Levers	See the option service manual.
*	C0701	Defective Leading Edge Stoppers	
*	C0711		
*	C0712		

C09** (Paper Take-Up Section malfunctions)

*	Code	Description	Detection Timing
	C0900	3rd Drawer Lift-Up failure	● The 3rd Drawer Lift-Up Sensor PC16 is not blocked (L) 5 seconds after the 3rd Drawer Paper Lift-Up Motor M25 has started rotating forward. ● PC16 is not blocked (L) even when 3rd Drawer Lift-Up Motor Pulse Sensor PC53 detects 150 HIGH-going and LOW-going edges after M25 has started turning forward.
	C0904	3rd Drawer Lift-Up Motor M25's failure to turn	● The 3rd Drawer Lift-Up Motor Pulse Sensor PC53 detects no pulses 500 msec. after M25 had been energized.

C09** (Paper Take-Up Section malfunctions)*

*	Code	Description	Detection Timing
*	C0910	2nd Drawer Lift-Up failure	● The 2nd Drawer Lift-Up Sensor PC15 is not blocked (L) 5 seconds after the 2nd Drawer Lift-Up Motor M24 has started rotating forward. ● PC15 is not blocked (L) even when 2nd Drawer Lift-Up Motor Pulse Sensor PC52 detects 150 HIGH-going and LOW-going edges after M24 has started turning forward.
*	C0911 (Inch Areas)	2nd Drawer Lower-Down failure	The 2nd Drawer Lift-Up Sensor PC15 is not unblocked (H) though the 2nd Drawer Lift-Up Motor Pulse Sensor PC52 detects 10 pulses after M24 had started rotating backward.
*	C0912 (Inch Areas)	2nd Drawer Lower-Down failure 2nd Drawer Lock failure	<Lower-down failure> ● The 2nd Drawer Lower Limit Position Sensor PC47 is not blocked (L) 5 seconds after the 2nd Drawer Lift-Up Motor M24 has started rotating backward. ● PC15 is not blocked (L) even when 2nd Drawer Lift-Up Motor Pulse Sensor PC52 detects 150 HIGH-going and LOW-going edges after M24 has started turning backward. <Lock failure> ● The 2nd Drawer Lower Limit Position Sensor PC47 is not blocked (L) 2 seconds after the 2nd Drawer Lift-Up Motor M24 has started rotating forward.
*	C0913 (Inch Areas)	2nd Drawer Lock failure	With the 2nd Drawer Lower Limit Position Sensor PC47 blocked (L), PC47 is not unblocked (H) 1.5 seconds after the 2nd Drawer Lift-Up Motor M24 has started rotating forward.

C09** (Paper Take-Up Section malfunctions)

*	Code	Description	Detection Timing
*	C0914	2nd Drawer Lift-Up Motor M24's failure to turn	● The 2nd Drawer Lift-Up Motor Pulse Sensor PC52 detects no pulses 500 msec. after M24 had been energized.
*	C0916 (Inch Areas)	2nd Drawer lock release failure	The 2nd Drawer is not pushed out 10 seconds after the 2nd Drawer Lowered Position Sensor PC47 has been blocked (L) during lowering motion.
*	C0920	1st Drawer Lift-Up failure	● The 1st Drawer Lift-Up Sensor PC14 is not blocked (L) 5 seconds after the 1st Drawer Lift-Up Motor M23 has started rotating forward. ● PC14 is not blocked (L) even when 1st Drawer Lift-Up Motor Pulse Sensor PC51 detects 150 HIGH-going and LOW-going edges after M23 has started turning forward.
*	C0921 (Inch Areas)	1st Drawer Lower-Down failure	The 1st Drawer Lift-Up Sensor PC14 is not unblocked (H) even though the 1st Drawer Lift-Up Motor Pulse Sensor PC51 detects 10 pulses after M23 has started rotating backward.
*	C0922 (Inch Areas)	1st Drawer Lower-Down failure 1st Drawer Lock failure	<Lower-down failure> ● The 1st Drawer Lower Limit Position Sensor PC46 is not blocked (L) 5 seconds after the 1st Drawer Lift-Up Motor M23 has started rotating backward. ● PC14 is not blocked (L) even when 1st Drawer Lift-Up Motor Pulse Sensor PC51 detects 150 HIGH-going and LOW-going edges after M23 has started turning backward. <Lock failure> ● The 1st Drawer Lower Limit Position Sensor PC46 is not blocked (L) 2 seconds after the 1st Drawer Lift-Up Motor M23 has started rotating forward.
*	C0923 (Inch Areas)	1st Drawer lock failure	With the 1st Drawer Lower Limit Position Sensor PC46 blocked (L), PC46 is not unblocked (H) 1.5 seconds after the 1st Drawer Lift-Up Motor M23 has started rotating forward.
*	C0924	1st Drawer Lift-Up Motor M23's failure to turn	● The 1st Drawer Lift-Up Motor Pulse Sensor PC51 detects no pulses 500 msec. after M23 had been energized.
*	C0926 (Inch Areas)	1st Drawer lock release failure	The 1st Drawer is not pushed out 10 seconds after the 1st Drawer Lower Limit Position Sensor PC46 has been blocked (L) during lowering motion.

C09** (Paper Take-Up Section malfunctions)

*	Code	Description	Detection Timing
*	C0990	Main Tray upward motion failure	● 3rd Drawer Paper Lift-Up Sensor PC16 is not blocked (L) even after the lapse of 10 sec. after 3rd Drawer Elevator Motor M27 has started turning forward (upward motion). ● PC16 is not blocked (L) even when 1st Drawer Elevator Motor Pulse Sensor PC55 detects 260 HIGH-going and LOW-going edges after M27 has started turning forward (upward motion). ● PC16 is not blocked (L) even when PC55 detects 80 HIGH-going and LOW-going edges after 3rd Drawer Paper Empty Sensor PC24 has detected paper during forward rotation of M27.
*	C0991	Main Tray downward motion failure	PC16 is not unblocked (H) even when PC55 detects 20 HIGH-going and LOW-going edges after M27 has started turning backward (downward motion).
*	C0992	Main Tray downward motion failure	● 3rd Drawer Tray Lower Position Sensor PC41 is not blocked (L) even after the lapse of 10 sec. after M27 has started turning backward (downward motion). ● PC41 is not blocked (L) even when PC55 detects 260 HIGH-going and LOW-going edges after M27 has been energized (downward motion). ● 3rd Drawer Main Tray Overrun Detecting Sensor PC42 is not blocked (L) even when M27 turns backward (downward motion), PC41 is blocked (L), and PC55 detects 30 HIGH-going and LOW-going edges. ● PC41 remains blocked (L) and PC42 remains blocked (L) for a continuous 15-msec. period while M27 is turning (upward/downward motion).
*	C0993	Main Tray upward motion failure	● PC41 is not unblocked (H) even when PC55 detects 20 HIGH-going and LOW-going edges after M27 has started turning forward (upward motion). ● PC41 is not unblocked (H) even when M27 turns forward (upward motion), PC42 is unblocked (H), and PC55 detects 30 HIGH-going and LOW-going edges.
*	C0994	3rd Drawer Elevator Motor M27's failure to turn	The 3rd Drawer Elevator Motor Pulse Sensor PC55 detects no pulses when 500 msec. has elapsed during the forward/backward rotation (upward/downward motion) of M27.
*	C0996	3rd Drawer lock release failure	The 3rd Drawer Set Sensor PC20 does not go HIGH even though the 3rd Drawer Lock Solenoid SL7 has been energized four times for 500 msec..

C09** (Paper Take-Up Section malfunctions)

*	Code	Description	Detection Timing
*	C0998	Shifter transfer failure	3rd Drawer Shifter Return Position Sensor PC44 does not detect the second low-going (blocking) edge even after the lapse of 10 sec. after 3rd Drawer Shift Motor M28 has started turning forward (right shift). Or, PC44 is not blocked (L) even when 3rd Drawer Shift Motor Pulse Sensor PC56 detects 250 HIGH-going and LOW-going edges after M28 has started turning forward (right shift).
*	C0999	Shifter return failure	PC44 is not unblocked (H) even when PC56 detects 20 HIGH-going and LOW-going edges after M28 has started turning backward (left shift).
*	C099A	Shifter return failure	3rd Drawer Shifter Home Position Sensor PC43 is not blocked (L) even after the lapse of 10 sec. after M28 has started turning backward (left shift). Or, PC44 is not blocked (L) even when PC56 detects 250 HIGH-going and LOW-going edges after M28 has started turning backward (left shift).
*	C099b	Shifter transfer failure	PC43 cannot detect a HIGH-going edge even when PC56 detects 20 HIGH-going and LOW-going edges after M28 has started turning forward (right shift).
*	C099C	3rd Drawer Shift Motor's failure to turn	The 3rd Drawer Shift Motor Pulse Sensor PC56 detects no pulses when 500 msec. has elapsed during the forward/backward rotation (right/left shift) of M28.
*	C099E	Shift Gate retracted position failure	3rd Drawer Shift Gate Position Sensor PC45 is not blocked (L) even after the lapse of 2 sec. after M34 has been energized to retract the Shift Gate.
*	C099F	Shift Gate advanced position failure	PC45 is not unblocked (H) even after the lapse of 2 sec. after M34 has been energized to advance the Shift Gate.

C09C* LCT Malfunctions

*	Code	Description	Detection Timing
*	C09C0	Elevator ascent failure	See the option service manual.
*	C09C2	Elevator descent failure	

C0b** Sorter Malfunctions

*	Code	Description	Detection Timing
	C0b00	Transport drive malfunction	See the option service manual.
	C0b01		
	C0b03		
	C0b04		
*	C0b10	Paper Clamp Unit motion failure	
*	C0b11		
*	C0b12		
*	C0b13		
	C0b18	Arm motion failure	
	C0b19		
	C0b1A		
	C0b1b		
	C0b1C		
	C0b1d		
*	C0b20	Staple Unit Motor malfunction	
*	C0b21		
*	C0b22		
*	C0b23		
*	C0b30	Paper aligning mechanism drive failure	
*	C0b31		
	C0b40	Gate Unit motion failure	
	C0b41		
*	C0b50	Stapling failure	
*	C0b51		
*	C0b52		
*	C0b60	Bin motion failure	
*	C0b61		
*	C0b62		
*	C0b63		
*	C0b64		
*	C0b65		
*	C0b70	Hole punching failure	
*	C0b71		
*	C0b72		

* With ST-1000/ST-1100, C0b21 to 23 and C0b60 to 65 are ordinary malfunctions.

C0d** (Duplex Unit malfunctions)

*	Code	Description	Detection Timing
*	**C0d00**	Duplex Unit Front/Rear Edge Guide Plates home position detection failure	This position is only detected during the initial operation. (When the Power Switch is turned ON, the Duplex Unit is loaded, Duplex Unit take- up ends, or the Duplex Unit is unloaded). This failure occurs when the Front/Rear Edge Guide Plate Home Position Sensor PC39 is not blocked (L) within 2.16 seconds after the initial operation is started.
*	**C0d20**	Duplex Unit Trailing Gate home position detection failure	This position is only detected during the initial operation. (When the Power Switch is turned ON, the Duplex Unit is loaded, Duplex Unit take- up ends, or the Duplex Unit is unloaded). 1. When the Duplex Gate Home Position Sensor PC40 is being blocked (L) at the start of the initial operation, this failure occurs if: (1) PC40 does not go HIGH within 2.63 seconds; or (2) PC40 does not go LOW within 1 second after it has gone HIGH.
			2. When the Duplex Gate Home Position Sensor PC40 is being unblocked (H) at the start of the initial operation, this failure occurs if PC40 does not go LOW within 7.06 seconds.
*	**C0d50**	Duplex Unit Drive Motor M7's failure to turn	The Motor Lock signal (L) is not detected within 1 second after 650 msec. has elapsed from the energization of M7. (Detected only at the start of the Motor.)
	C0d51	Duplex Unit Drive Motor M7 turning at abnormal timing	The Motor Lock signal (L) is detected for a continuous 1-second period 100 msec. after M7 has been deenergized. (Detected any time during the stop of the Motor.)

C0E** (Erase Lamp malfunctions)

*	Code	Description	Detection Timing
	C0E00	Main Erase Lamp LA2's failure to turn ON	The LA2 Malfunction signal remains HIGH for a continuous 1-second period while LA2 remains ON.
	C0E01	Main Erase Lamp LA2 turning ON at abnormal timing	The LA2 Malfunction signal remains LOW for a continuous 1-second period while LA2 remains OFF.
	C0E20	Image Erase Lamp LD1's failure to turn ON	The Set signal remains HIGH for a continuous 1-second period after the Power Switch has been turned ON.

C0F** (Sensor malfunctions)

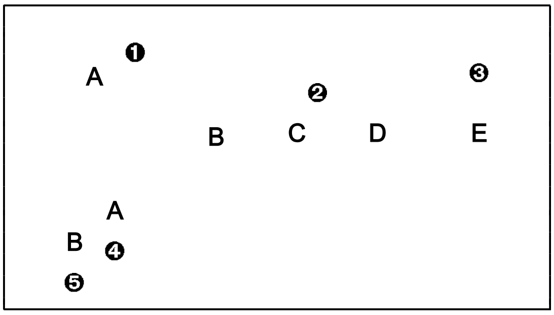
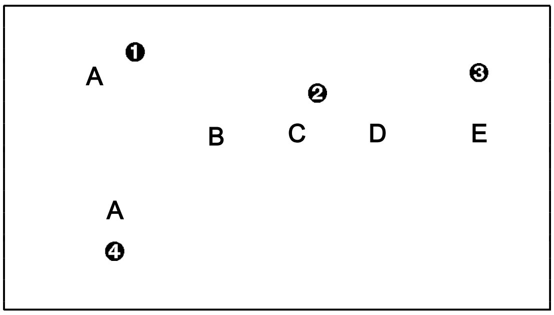
*	Code	Description	Detection Timing
	C0F02	Original Size Detecting Board UN3 malfunction	<In F7 mode> 1) The Busy signal does not go LOW within approx. 800 msec. after the Initial signal has gone LOW, or undefined data is input to the Master CPU. 2) If 1 is checked okay, the Busy signal goes HIGH within approx. 200 msec. 3) If both 1 and 2 are checked okay, the Busy signal does not go HIGH within approx. 4-second. 4) If 1, 2 and 3 are checked okay, undefined data is input to the Master CPU after approx. 500 msec. <Under normal conditions> 1) The Busy signal remains HIGH or LOW for approx. 3,000 msec or more. 2) Undefined data is input to the Master CPU. <When the Power Switch S1 is turned ON> 1) The Busy signal remains HIGH or LOW for approx. 5,000 msec or more. 2) Undefined data is input to the Master CPU.

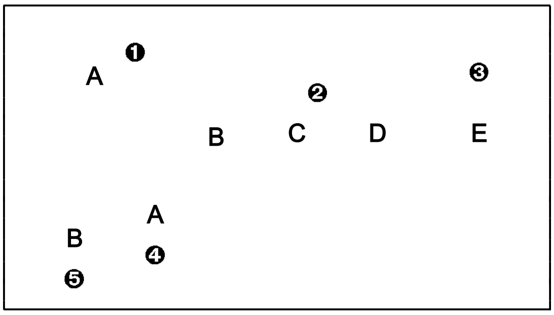
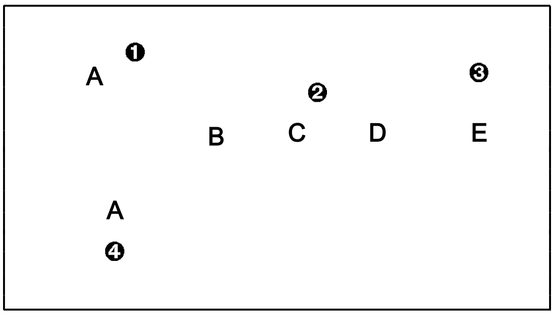
C0F** (Sensor malfunctions)

*	Code	Description	Detection Timing
*	C0F10	AE Sensor Board PWB-H malfunction	<In normal conditions> ● The output from PWB-H remains approx. 0.18V or less for a continuous 2-second period when LA1 is OFF, PC1 output is LOW, or S5 output is LOW (i.e. the Original Cover is closed). <In F5 mode> ● The output from PWB-H is less than 1.8V when the gain of the AE Sensor is 100%. ● The output from PWB-H is 1.8V or more when the gain of the AE Sensor is 0%. ● The output from PWB-H is outside the target range (1.8 ±0.05V) when the gain of the AE Sensor is 50%. <When the optimum LA1 voltage is changed after the intensity of LA1 light has been corrected> ● The output from PWB-H at the AE Sensor gain of 100% is smaller than that for halftones stored in the F5 mode. ● The output from PWB-H at the AE Sensor gain of 0% is smaller than that for halftones stored in the F5 mode. ● The output from PWB-H at the AE Sensor gain of 50% is outside the range of output for halftones stored in the F5 mode ±0.05V.
*	C0F20	AIDC Sensor UN13 variation correction failure	● The UN13 output is 0.9V or more when all signals from the 4-bit analog switch are turned LOW (i.e. when a load resistance is maximum). ● The UN13 output is less than 1.1V when all signals from the 4-bit analog switch are turned HIGH (i.e. when a load resistance is minimum). ● The adjustment value does not fall within the range of 0.9 to 1.1V when the AIDC Sensor LED current is adjusted (PWM adjustment).
*	C0F22	AIDC Sensor UN13 grid voltage (Vg) correction failure	<In F5 or FF operation> 1) Output Vg at 580V. 2) Produce a solid black pattern and sample UN13 outputs. 3) The average of the above readings is less than 1.0V.
*	C0F23	AIDC Sensor UN13 exposure correction failure	The AIDC Sensor output voltage does not become 1.6 ±0.2V even after the eighth correction sequence.

C0F** (Sensor malfunctions)

*	Code	Description	Detection Timing
*	C0F30	ATDC Sensor UN12 malfunction	The UN12 output remains approx. 0.5V or less or approx. 4.2V or more for a continuous 3-second period while M1 remains energized.
*	C0F31	ATDC Sensor UN12 malfunction	● In the F8 mode, the output of UN12 does not fall within the range 3.3V to 11.0V.
*	C0F61	Drawer paper width reference position failure	<When Fd-4 is executed> ● The maximum set reference voltage exceeds 2.5V. <When Fd-5 is executed> ● The minimum set reference voltage becomes 2.35V or less.
*	C0F66	Manually fed paper width reference position failure	<When Fd-0 or Fd-2 is executed> ● The maximum set reference voltage becomes 2.35V or less. <When Fd-1 or Fd-3 is executed> ● The minimum set reference voltage becomes 2.35V or more.
*	C0F79	3rd Drawer Paper Empty Sensor PC24 malfunction	PC24 is not blocked (L) when the Main Tray has completed lift-up.
		Main Tray Paper Empty Detecting Board PWB-E malfunction	PWB-E does not detect a HIGH when the Main Tray has completed lowering due to a paper empty condition.
			PWB-E does not detect a LOW after completion of paper transfer from the Shift Tray to the Main Tray.
		Shift Tray Paper Empty Sensor PC57 malfunction	PC57 is not unblocked (H) after completion of paper transfer from the Shift Tray to the Main Tray.

	Code	Description	Detection Timing and Sensor Layout
Original Size Detecting Board *	C0FE1	Original Size Detecting Sensor ❶ failure	<Detection Timing> After having read the output data from UN4 to UN8, UN3 determines that there is a failure. <Sensor Layout> Metric Areas ● ❶: UN4, ❷: UN5, ❸: UN6 (option), ❹: UN7, ❺: UN8 (option) * UN6 and UN8 are standard for Hong Kong area. ● A to E: Sensor locations  Inch Areas ● ❶: UN4 (option), ❷: UN5, ❸: UN6 (option), ❹: UN7 
	C0FE2	Original Size Detecting Sensor ❷ failure	
	C0FE3	Original Size Detecting Sensors ❶ and ❷ failure	
	C0FE4	Original Size Detecting Sensor ❸ failure	
	C0FE5	Original Size Detecting Sensors ❶ and ❸ failure	
	C0FE6	Original Size Detecting Sensors ❷, and ❸ failure	
	C0FE7	Original Size Detecting Sensors ❶,❷, and ❸ failure	
	C0FE8	Original Size Detecting Sensor ❹ failure	
	C0FE9	Original Size Detecting Sensors ❶ and ❹ failure	
	C0FEA	Original Size Detecting Sensors ❷ and ❹ failure	
	C0FEB	Original Size Detecting Sensors ❶,❷, and ❹ failure	
	C0FEC	Original Size Detecting Sensors ❸ and ❹ failure	
	C0FED	Original Size Detecting Sensors ❶,❸, and ❹ failure	
	C0FEE	Original Size Detecting Sensors ❷,❸, and ❹ failure	
	C0FEF	Original Size Detecting Sensors ❶,❷,❸, and ❹ failure	

	Code	Description	Sensor Layout
Original Size Detecting Board *	C0FF0	Original Size Detecting Sensor ❺ failure	Metric Areas ● ❶: UN4, ❷: UN5, ❸: UN6 (option), ❹: UN7, ❺: UN8 (option) * UN3 and UN8 are standard for Hong Kong area. ● A to E: Sensor locations  Inch Areas ● ❶: UN4 (option), ❷: UN5, ❸: UN6 (option), ❹: UN7 
	C0FF1	Original Size Detecting Sensors ❶and ❺ failure	
	C0FF2	Original Size Detecting Sensors ❷ and ❺ failure	
	C0FF3	Original Size Detecting Sensors ❶,❷, and ❺ failure	
	C0FF4	Original Size Detecting Sensors ❸ and ❺ failure	
	C0FF5	Original Size Detecting Sensors ❶,❸, and ❺ failure	
	C0FF6	Original Size Detecting Sensors ❷,❸, and ❺ failure	
	C0FF7	Original Size Detecting Sensors ❶,❷,❸, and ❺ failure	
	C0FF8	Original Size Detecting Sensors ❹ and ❺ failure	
	C0FF9	Original Size Detecting Sensors ❶,❹, and ❺ failure	
	C0FFA	Original Size Detecting Sensors ❷,❹, and ❺ failure	
	C0FFB	Original Size Detecting Sensors ❶,❷,❹, and ❺ failure	
	C0FFC	Original Size Detecting Sensors ❸,❹, and ❺ failure	
	C0FFD	Original Size Detecting Sensors ❶,❸,❹, and ❺ failure	
	C0FFE	Original Size Detecting Sensors ❷,❸,❹, and ❺ failure	
	C0FFF	Original Size Detecting Sensors ❶,❷,❸,❹, and ❺ failure (Metric Areas)	

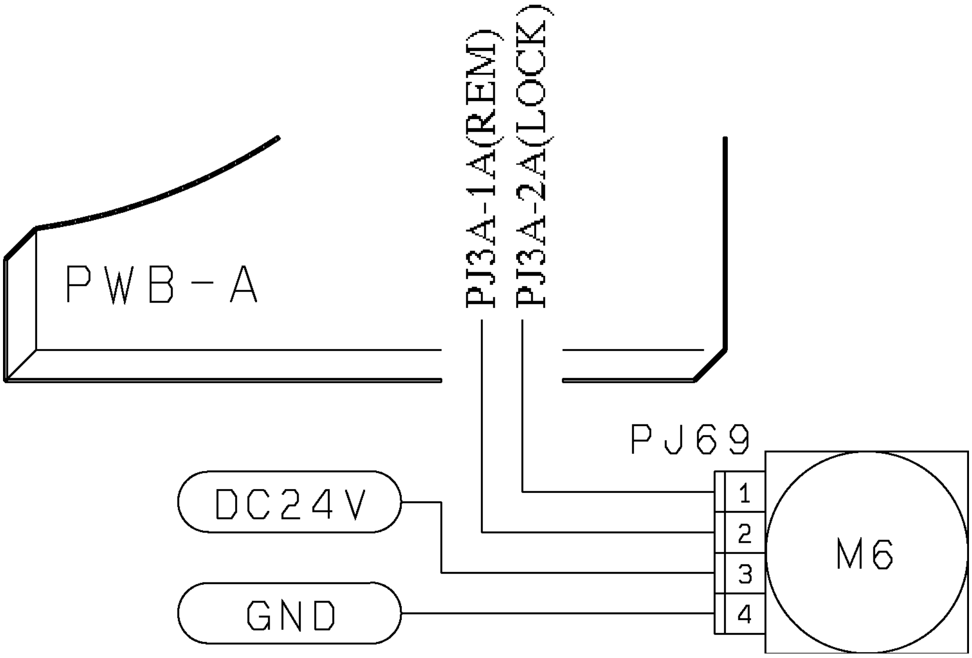
1161SBT0402A

4-2. Troubleshooting Procedures

1161SBT040201A

1) C0000: Fusing Motor M6's Failure to Turn
C0001: Fusing Motor M6 Turning at Abnormal Timing

Relevant Electrical Parts	
● Fusing Motor M6	● Master Board PWB-A


PJ3A-1A(REM)
PJ3A-2A(LOCK)
PWB-A
PJ69
DC24V
GND
1
2
3
4
M6

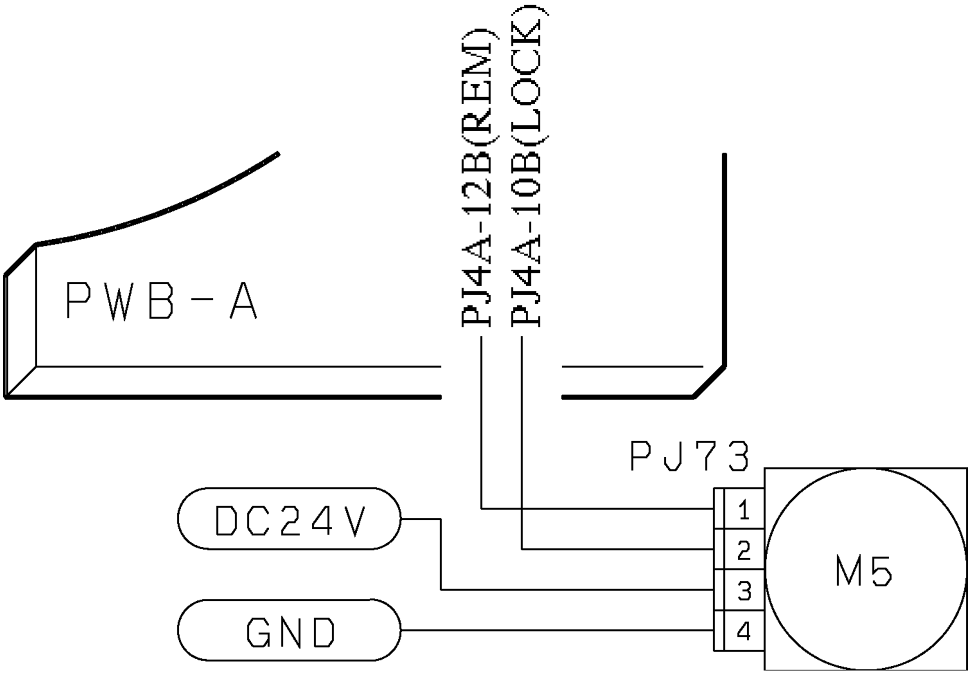
1075C09TAA

Step	Check Item	Result	Action
1	Is the malfunction code C0000?	NO	● Go to Step 5.
2	Check the M6 REM signal as described below: 1) Reset the malfunction. 2) Select “IC Port Data Check”.	-	————
	3) By changing the data of BPA7 on PWB-A (IC3A) from “1” to “0”, does M6 rotate?	NO	● Go to Step 4.
3	Check the M6 Lock signal as described below: 1) Select “IC Port Data Check”.	-	————
	2) Is the data of APC2 on PWB-A (IC3A) “$\boxed{L}$”?	YES	● Change PWB-A.
		NO	● Check the gears, belt, etc. for overload. ● Change M6.
4	By making a “Board Check” in “I/O Check”, is the malfunction code displayed?	YES	● Change PWB-A.
		NO	● Check the gears, belt, etc. for overload. ● Change M6.
5	Check the M6 REM signal as described below: 1) Select “IC Port Data Check”.	-	————
	2) Is the data of BPA7 on PWB-A (IC3A) “1”?	NO	● Change PWB-A.
6	Check the M6 Lock signal as described below: 1) Select “IC Port Data Check”.	-	————
	2) Is the data of APC2 on PWB-A (IC3A) “$\boxed{H}$”?	YES	● Change PWB-A.
		NO	● Change M6.

1161SBT040202A

2) C0010: PC Drum Drive Motor M5's Failure to Turn
C0011: PC Drum Drive Motor M5 Turning at Abnormal Timing

Relevant Electrical Parts	
● PC Drum Drive Motor M5	● Master Board PWB-A


PJ4A-12B(REM)
PJ4A-10B(LOCK)
PWB-A
PJ73
DC24V
GND
1
2
3
4
M5

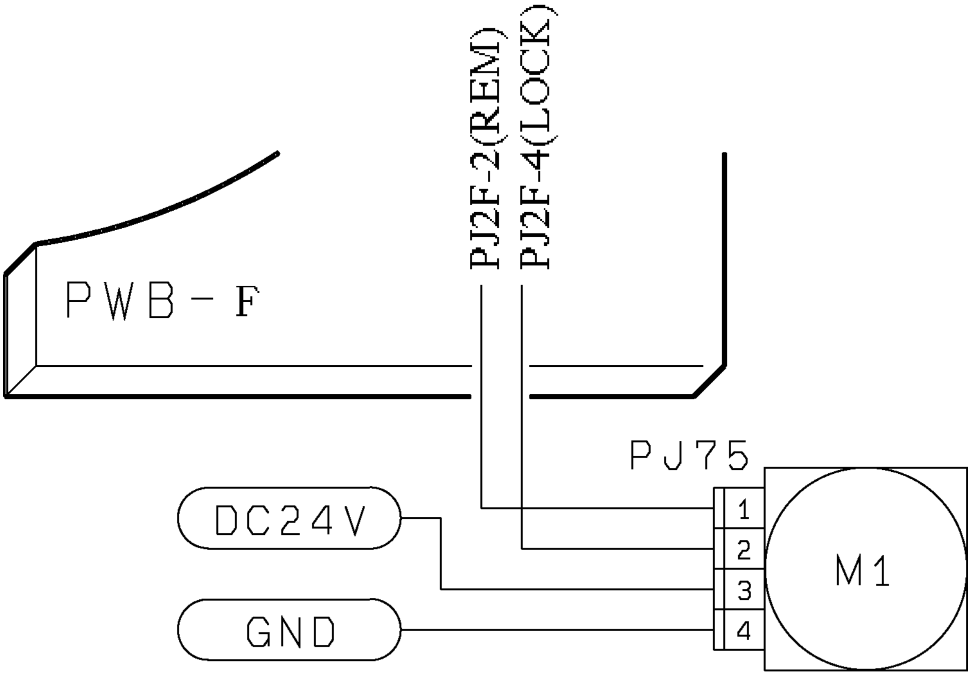
1075C10TAA

Step	Check Item	Result	Action
1	Is the malfunction code C0010?	NO	● Go to Step 5.
2	Check the M5 REM signal as described below: 1) Reset the malfunction. 2) Select “IC Port Data Check”.	-	
	3) By changing the data of APB4 on PWB-A (IC4A) from “1” to “0”, does M5 rotate?	NO	● Go to Step 4.
3	Check the M5 Lock signal as described below: 1) Select “IC Port Data Check”.	-	
	2) Is the data of APA4 on PWB-A (IC4A) “L”?	YES	● Change PWB-A.
		NO	● Check the gears, belt, etc. for overload. ● Change M5.
4	By making a “Board Check” in “I/O Check”, is the malfunction code displayed?	YES	● Change PWB-A.
		NO	● Check the gears, belt, etc. for overload. ● Change M5.
5	Check the M5 REM signal as described below: 1) Select “IC Port Data Check”.	-	
	2) Is the data of APB4 on PWB-A (IC4A) “1”?	NO	● Change PWB-A.
6	Check the M5 Lock signal as described below: 1) Select “IC Port Data Check”.	-	
	2) Is the data of APA4 on PWB-A (IC4A) “H”?	YES	● Change PWB-A.
		NO	● Change M5.

1161SBT040203A

3) C0020: Paper Take-Up Motor M1's Failure to Turn
C0021: Paper Take-Up Motor M1 Turning at Abnormal Timing

Relevant Electrical Parts	
• Paper Take-Up Motor M1	• Master Board PWB-A


PJ2F-2(REM)
PJ2F-4(LOCK)
PWB-F
PJ75
DC24V
GND
1
2
3
4
M1

1075C11TAA

Step	Check Item	Result	Action
1	Is the malfunction code C0020?	NO	● Go to Step 5.
2*	Check the M1 REM signal as described below: 1) Reset the malfunction. 2) Select “IC Port Data Check”.	-	———
	3) By changing the data of PE0 on PWB-F (IC2F) from “1” to “0”, does M1 rotate?	NO	● Go to Step 4.
3*	Check the M1 Lock signal as described below: 1) Select “IC Port Data Check”.	-	———
	2) Is the data of PE3 on PWB-F (IC2F) “$\boxed{L}$”?	YES	● Change PWB-A.
		NO	● Check the gears, belt, etc. for overload. ● Change M1.
4	By making a “Board Check” in “I/O Check”, is the malfunction code displayed?	YES	● Change PWB-A.
		NO	● Check the gears, belt, etc. for overload. ● Change M1.
5*	Check the M1 REM signal as described below: 1) Select “IC Port Data Check”.	-	———
	2) Is the data of PE0 on PWB-F (IC2F) “1”?	NO	● Change PWB-A.
6*	Check the M1 Lock signal as described below: 1) Select “IC Port Data Check”.	-	———
	2) Is the data of PE3 on PWB-F (IC2F) “$\boxed{H}$”?	YES	● Change PWB-A.
		NO	● Change M1.

*In EP8015, press the Start key and check to see if M1 turns.

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4) C0040: Suction Fan Motor M18's Failure to Turn

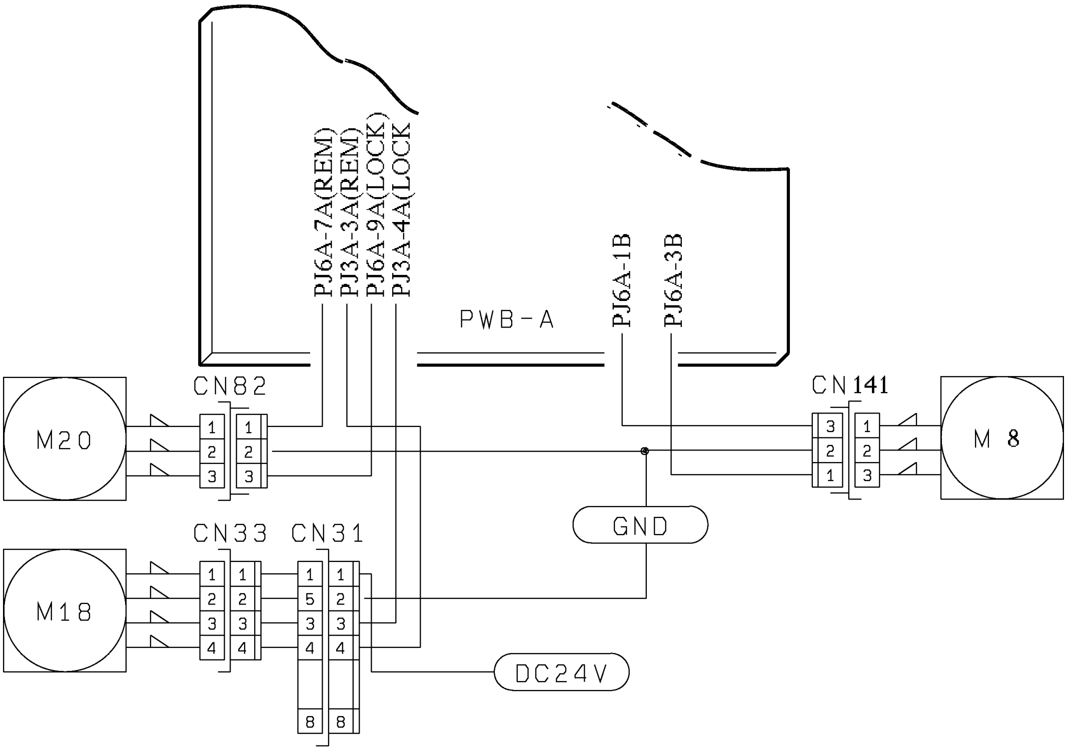
C0042: Toner Suction Fan Motor M20's Failure to Turn

C0043: Toner Suction Fan Motor M20 Turning at Abnormal Timing

C0046: Fusing Unit Ventilation Fan Motor M8's Failure to Turn.

C0047: Fusing Unit Ventilation Fan Motor M8 Turning at Abnormal Timing

Relevant Electrical Parts	
● Suction Fan Motor M18 ● Toner Suction Fan Motor M20	● Master Board PWB-A ● Fusing Unit Ventilation Fan Motor M8


PJ6A-7A(REM)
PJ3A-3A(REM)
PJ6A-9A(LOCK)
PJ3A-4A(LOCK
PWB-A
PJ6A-1B
PJ6A-3B
CN82
CN141
M20
M 8
GND
CN33
CN31
M18
DC24V

1075C12TAA

◆Motor’s Failure to Turn (C0040/C0042/C0046)

Step	Check Item	Result	Action
1	Check the motor REM signal as described below: 1) Reset the malfunction. 2) Select “IC Port Data Check”.	-	———
	3) Does the motor corresponding to the malfunction code turn when the following data is changed? (*) M8 ..... PWB-A (IC4A) BPA3 M18 ..... PWB-A (IC4A) APB3 M20 ..... PWB-A (IC4A) BPA4	NO	• Check step 3.
2	Does the malfunction code appear when “Controller Board Check” of “I/O Check” is run?	YES	• Change PWB-A.
		NO	• Check the fan for overload. • Change the motor corresponding to the malfunction code.
3	Check the Lock signal of the motor corresponding to the malfunction code as follows. 1) Select “IC Port Data Check.”	-	———
	2) Is the data of the Lock signal L (H for M18)? M8 ..... PWB-A (IC4A) BPB1 M18 ..... PWB-A (IC4A) APC3 M20 ..... PWB-A (IC4A) BPB2	YES	• Change PWB-A.
		NO	• Check the fan for overload. • Change the motor corresponding to the malfunction code.

* “0” at half-speed rotation and “1” at full-speed rotation for M18.

◆Motor Turning at Abnormal Timing (C0043/C0047)

Step	Check Item	Result	Action
1	Check the motor REM signal as described below: 1) Select “IC Port Data Check”.	-	———
	2) Is the data of the following ”1”? M8 ..... PWB-A (IC4A) BPA3 M20 ..... PWB-A (IC4A) BPA4	NO	• Change PWB-A.
3	Check the Lock signal of the motor corresponding to the malfunction code as follows. 1) Select “IC Port Data Check”.	-	———
	2) Is the data of the Lock signal H (L for M8)? M8 ..... PWB-A (IC4A) BPB1 M20 ..... PWB-A (IC4A) BPB2	YES	• Change PWB-A.
		NO	• Change the motor corresponding to the malfunction code.

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5) C004A: Optical Section Cooling Fan Motor M17's Failure to Turn

C004b: Optical Section Cooling Fan Motor M17 Turning at Abnormal Timing

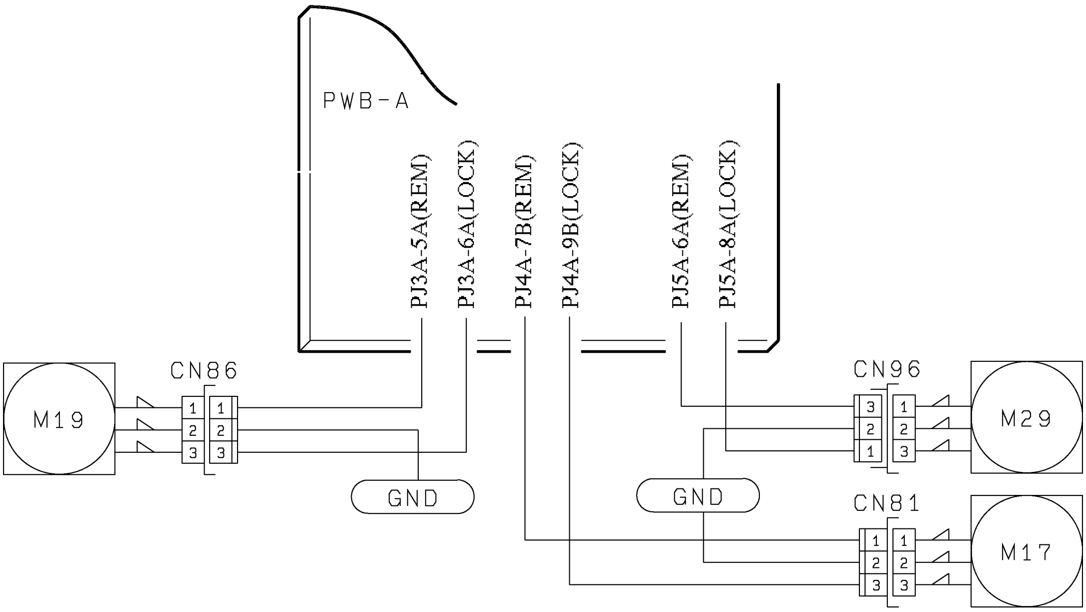
C004c: Ventilation Fan Motor M19's Failure to Turn

C004d: Ventilation Fan Motor M19 Turning at Abnormal Timing

C004E: Power Supply Unit Cooling Fan Motor M29's Failure to Turn

C004F: Power Supply Unit Cooling Fan Motor M29 Turning at Abnormal Timing

Relevant Electrical Parts	
● Ventilation Fan Motor M19 ● Master Board PWB-A	● Optical Section Cooling Fan Motor M17 ● Power Supply Unit Cooling Fan Motor M29


PWB-A
PJ3A-5A(REM)
PJ3A-6A(LOCK)
PJ4A-7B(REM)
PJ4A-9B(LOCK)
PJ5A-6A(REM)
PJ5A-8A(LOCK)
CN86
M19
1
2
3
GND
GND
CN96
M29
CN81
M17

1075C13TAA

◆Motor's Failure to Turn (C004A/C004C/C004E)

Step	Check Item	Result	Action
1	Check the motor REM signal as described below: 1) Reset the malfunction. 2) Select "IC Port Data Check".	-	———————
	3) Does the motor corresponding to the malfunction code turn when the following data is changed? M17 ..... PWB-A (IC4A) APB3 M19 ..... PWB-A (IC3A) BPB5 M29 ..... PWB-A (IC4A) APC1	NO	• Check step 3.
2	Does the malfunction code appear when "Controller Board Check" of "I/O Check" is run?	YES	• Change PWB-A.
		NO	• Check the fan for overload. • Change the Motor corresponding to the malfunction code.
3	Check the Lock signal of the motor corresponding to the malfunction code as follows. 1) Select "IC Port Data Check."	-	———————
	2) Is the data of the Lock signal $\boxed{L}$? M17 ..... PWB-A (IC4A) APA3 M19 ..... PWB-A (IC4A) APA0 M29 ..... PWB-A (IC4A) APA7	YES	• Change PWB-A.
		NO	• Check the fan for overload. • Change the Motor corresponding to the malfunction code.

◆Motor Turning at Abnormal Timing (C004b/C004d/C004F)

Step	Check Item	Result	Action
1	Check the motor REM signal as described below: 1) Select "IC Port Data Check".	-	———————
	2) Is the data of the following "1"? M17 ..... PWB-A (IC4A) APB3 M19 ..... PWB-A (IC3A) BPB5 M29 ..... PWB-A (IC4A) APC1	NO	• Change PWB-A.
3	Check the Lock signal of the motor corresponding to the malfunction code as follows. 1) Select "IC Port Data Check".	-	———————
	2) Is the data of the Lock signal $\boxed{H}$? M17 ..... PWB-A (IC4A) APA3 M19 ..... PWB-A (IC4A) APA0 M29 ..... PWB-A (IC4A) APA7	YES	• Change PWB-A.
		NO	• Change the motor corresponding to the malfunction code.

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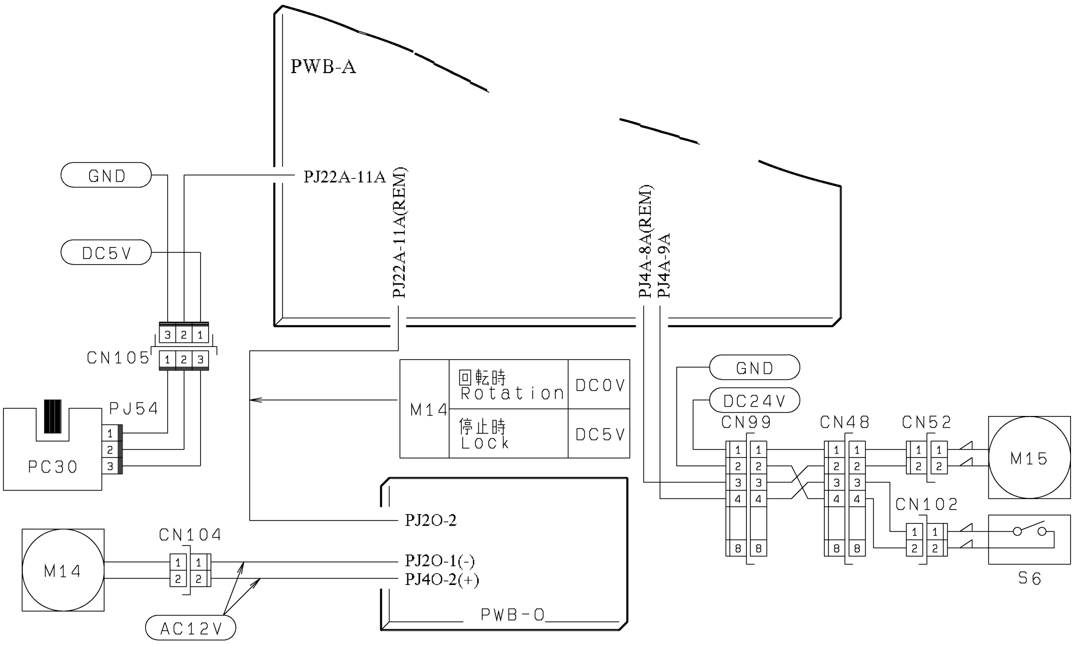
6) C0070: Main Hopper Toner Replenishing Motor M14's Failure to Turn

C0071: Main Hopper Toner Replenishing Motor M14 Turning at Abnormal Timing

C0072: Sub Hopper Toner Replenishing Motor M15's Failure to Turn

Relevant Electrical Parts	
● Main Hopper Toner Replenishing Motor M14 ● Sub Hopper Toner Replenishing Motor M15 ● Toner Bottle Home Position Sensor PC30	● Sub Hopper Toner Empty Detecting Switch S6 ● Master Board PWB-A ● M14/M16/M22 Drive Board PWB-O


PWB-A
GND
DC5V
PJ22A-11A
PJ22A-11A(REM)
PJ4A-8A(REM)
PJ4A-9A
CN105
PJ54
PC30
M14
回転時
Rotation
DC0V
停止時
Lock
DC5V
GND
DC24V
CN99
CN48
CN52
M15
CN102
S6
PJ2O-2
CN104
M14
PJ2O-1(-)
PJ4O-2(+)
AC12V
PWB-O

1075C14TAA

◆C0070, C0071

Step	Check Item	Result	Action
1	Do as described below to check whether M14 rotates: 1) Open the Upper Front Door and turn the Toner Bottle slightly toward you. 2) Turn the Power Switch OFF and ON.	-	———
	3) Does the Toner Bottle turn when the Upper Front Door Set Sensor is blocked?	NO	• Go to Step 3.
2	Does the Toner Bottle stop after turning?	YES	• Change PWB-A.
		NO	• Change PC30.
3	Do as in Step 1 again. Is the voltage across PJ4A-8A on PWB-A and GND DC0V?	NO	• Change PWB-A.
4	Do as described below to check whether power is supplied to M14: 1) Arrange so that PWB-O is visible. 2) Unplug PJ4O.	-	———
	3) Do as in Step 1. Is the voltage across PJ4O-1 and –2 AC12V?	YES	• Change M14.
		NO	• Change PWB-O.

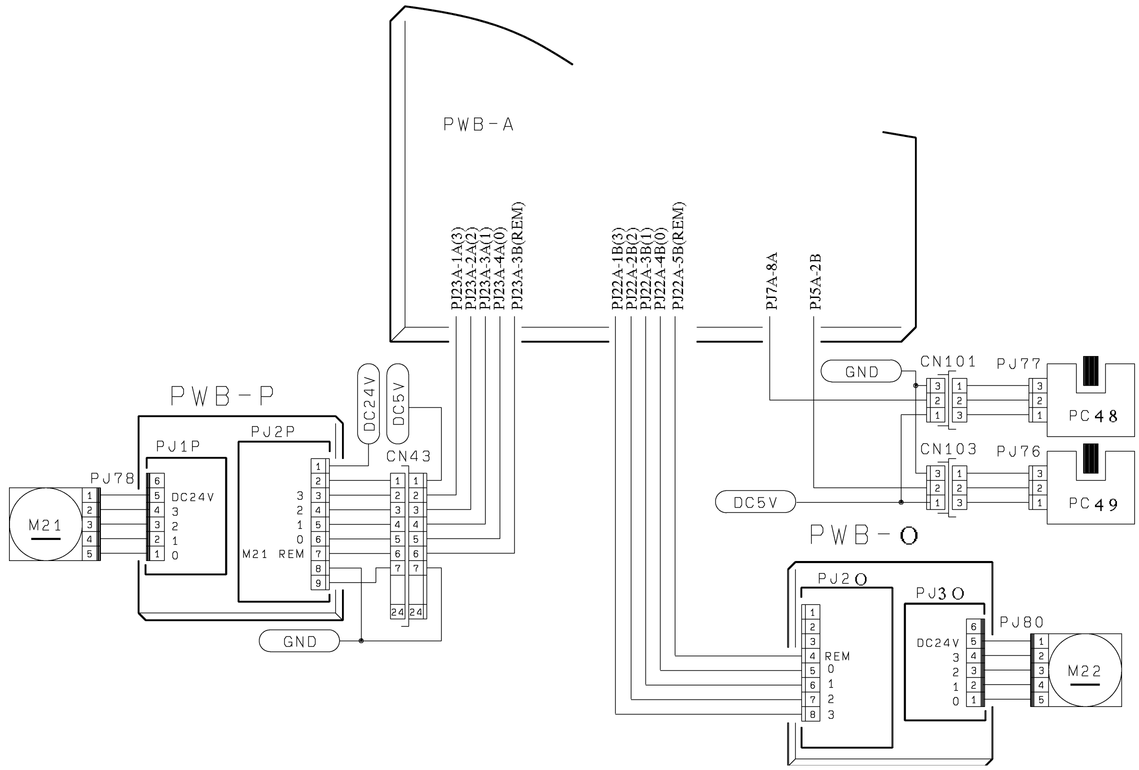
◆C0072

Step	Check Item	Result	Action
1	Is the amount of toner in the Sub Hopper so low that the system detects a toner-empty condition?	NO	• Go to Step 3.
2	Do as described below to check the input signal from S6 on detection of a toner empty condition: 1)Select “IC Port Data Check”.	-	———
	2) Is the data of APA5 on PWB-A (IC4A) “$\boxed{\text{L}}$”?	YES	• Change S6
		NO	• Change PWB-A.
3	Check the output signal to M15 as described below: 1) Select “IC Port Data Check”.	-	———
	2) Is the data of APB2 on PWB-A (IC4A) “0”?	YES	• Change M15.
		NO	• Change PWB-A.

1161SBT040207A

7) C0100: PC Drum Charge Wire Cleaning Motor M21's Failure to Turn
C0110: Image Transfer/Paper Separator Charge Wire Cleaning Motor M22's Failure to Turn

Relevant Electrical Parts	
● PC Drum Charge Comb Cleaning Motor M21 ● Image Transfer/Paper Separator Charge Wire Cleaning Motor M22 ● Drum Comb Cleaner Home Position Sensor PC48 ● Transfer/Separator Wire Cleaner Home Position Sensor PC49	● Master Board PWB-A ● PC Drum Charge Comb Cleaning Motor Drive Board PWB-P ● M14/M16/M22 Drive Board PWB-O


PWB-A
PJ23A-1A(3)
PJ23A-2A(2)
PJ23A-3A(1)
PJ23A-4A(0)
PJ23A-3B(REM)
PJ22A-1B(3)
PJ22A-2B(2)
PJ22A-3B(1)
PJ22A-4B(0)
PJ22A-5B(REM)
PJ7A-8A
PJ5A-2B
GND
CN101
PJ77
PC48
CN103
PJ76
PC49
DC5V
PWB-O
PJ20
PJ30
PJ80
REM
DC24V
M22
PWB-P
DC24V
DC5V
PJ1P
PJ2P
CN43
PJ78
M21
M21 REM
GND
24

1075C16TAA

◆The procedures for C0100 and C0110 are the same. The parts for C0110 are indicated in the parentheses.

Step	Check Item	Result	Action
1	Is the Cleaner Holder at a stop in the home position? (In the back part of the Corona)	YES	● Go to Step 4.
2	Check PC48 (PC49) as described below: 1) Select “IC Port Data Check”.	-	—
	2) Is the data of BPB6 (APC5) on PWB-A (IC4A) “$\boxed{H}$”?	NO	● Check the operation of the Actuator or change PC48 (PC49).
3	When the Screw Shaft is turned by hand, does the Cleaner Holder move smoothly?	YES	● Change PWB-P (PWB-O). If the malfunction recurs, change PWB-A.
		NO	● Check the Stabilizing Plate for burrs, the Screw for deformation, and the Gear of M21 (M22).
4	Check PC48 (PC49) as described below: 1) Select “IC Port Data Check”.	-	—
	2) Is the data of BPB6 (APC5) on PWB-A (IC4A) “$\boxed{L}$”?	YES	● Check the Stabilizing Plate for burrs, the Screw for deformation, and the Gear of M21 (M22) ● Change PWB-P (PWB-O). If the malfunction recurs, change PWB-A or M21 (M22).
		NO	● Check the operation of the Actuator or change PC48 (PC49).

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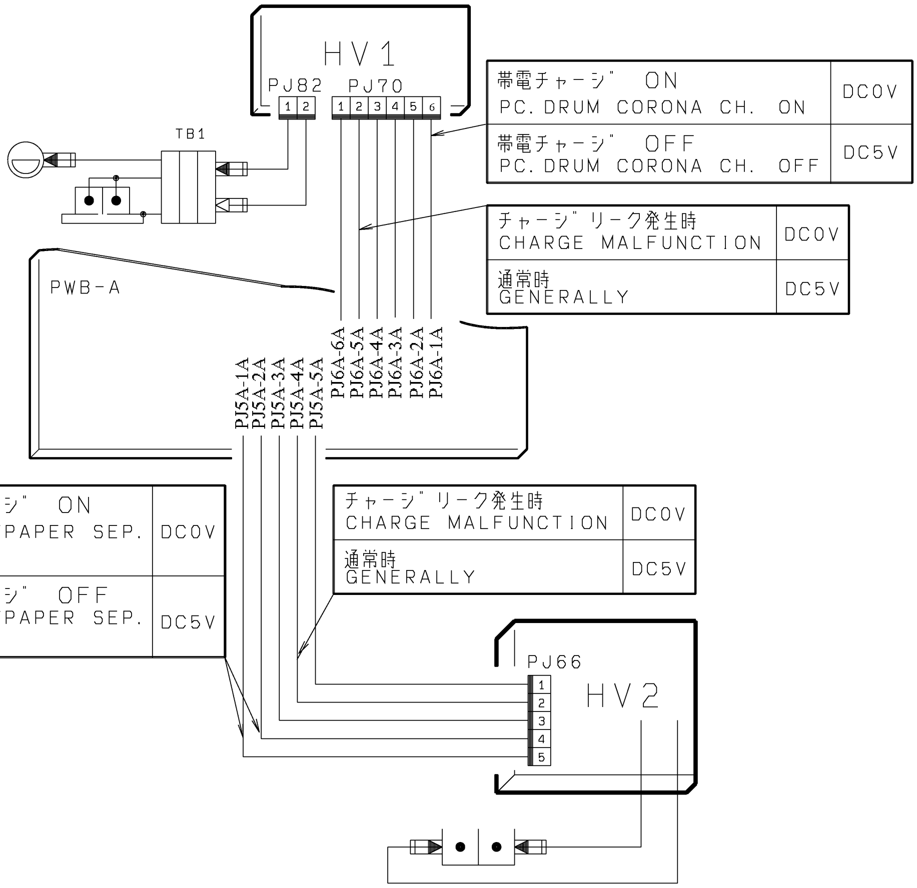
8) C0200: PC Drum Charge Corona Failure

C0210: Image Transfer/Paper Separator Coronas Failure

Relevant Electrical Parts	
● PC Drum Charge HV HV1 ● Image Transfer/Paper Separator HV HV2	● Master Board PWB-A


HV1
PJ82
PJ70
1
2
1
2
3
4
5
6
TB1
帯電チャージ ON
PC. DRUM CORONA CH. ON
DC0V
帯電チャージ OFF
PC. DRUM CORONA CH. OFF
DC5V
チャージリーク発生時
CHARGE MALFUNCTION
DC0V
通常時
GENERALLY
DC5V
PWB-A
PJ6A-6A
PJ6A-5A
PJ6A-4A
PJ6A-3A
PJ6A-2A
PJ6A-1A
PJ5A-1A
PJ5A-2A
PJ5A-3A
PJ5A-4A
PJ5A-5A
転写/分離チャージ ON
IMAGE TR./PAPER SEP. CORONA ON
DC0V
転写/分離チャージ OFF
IMAGE TR./PAPER SEP. CORONA OFF
DC5V
チャージリーク発生時
CHARGE MALFUNCTION
DC0V
通常時
GENERALLY
DC5V
PJ66
HV2
1
2
3
4
5

1075C17TAA

◆C0200

Step	Check Item	Result	Action
1	Is the PC Drum Charge Corona installed properly?	NO	● Install the PC Drum Charge Corona properly.
2	Are the PC Drum Charge Corona wires dirty or have they snapped?	YES	● Clean or replace the corona wires.
3	Is “C0200” shown even when PJ70 is unplugged from PC Drum Charge HV HV1?	YES	● Replace PWB-A.
		NO	● Replace HV1.

◆C0210

Step	Check Item	Result	Action
1	Is the Image Transfer/Paper Separator Coronas Unit installed properly?	NO	● Install the Image Transfer/Paper Separator Coronas Unit properly.
2	Are the Image Transfer/Paper Separator Coronas wires dirty or have they snapped?	YES	● Clean or replace the corona wires.
3	Is “C0210” shown even when PJ66 is unplugged from Image Transfer/Paper Separator HV HV2?	YES	● Replace PWB-A.
		NO	● Replace HV2.

Note: Since malfunction detecting sensitivity for HV2 is higher than that for HV1, the PC Drum Charge Corona should also be checked when “C0210” is detected.

1161SBT040209A

9) C03** (Master Board, Harness malfunction)

◆C0300 to C034D

Step	Action
1	Change PWB-A.

◆C0350, C0351, C0370, C0371

Step	Action
1	Check that PJ17A is securely plugged into PWB-A and PJ9F into PWB-F.
2	Change PWB-F or PWB-A.

◆C0352

Step	Action
1	Check that PJ16A and CN58 are securely plugged into PWB-A and PJ8G into PWB-G.
2	Change PWB-G or PWB-A.

◆C0353, C0373

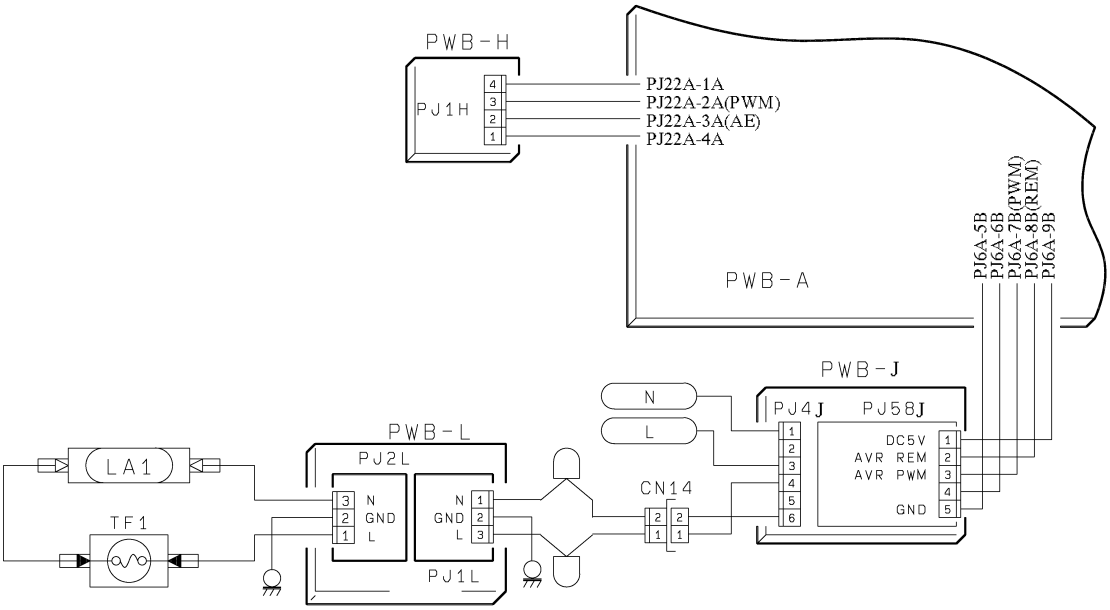
Step	Action
1	Check that the connector for connection of the copier and LCT is without fault.
2	Check that PJ16A is securely plugged into PWB-A and CN1A into LCT PWB-A.
3	Change PWB-A or LCT PWB-A.

1161SBT040210A

10) C0400: Exposure Lamp LA1's Failure to Turn ON

C0410: Exposure Lamp LA1 Turning ON at Abnormal Timing

Relevant Electrical Parts	
● Exposure Lamp LA1	● Master Board PWB-A
● Exposure Lamp Thermal Fuse TF1	● AE Sensor Board PWB-H
● Exposure Lamp Regulator PWB-J	● Lamp Flat Cable PWB-L


PWB-H
PJ1H
4
3
2
1
PJ22A-1A
PJ22A-2A(PWM)
PJ22A-3A(AE)
PJ22A-4A
PWB-A
PJ6A-5B
PJ6A-6B
PJ6A-7B(PWM)
PJ6A-8B(REM)
PJ6A-9B
PWB-J
N
L
PJ4J
PJ58J
1
2
3
4
5
6
DC5V
AVR REM
AVR PWM
GND
1
2
3
4
5
CN14
2
1
2
1
PWB-L
PJ2L
3 N
2 GND
1 L
N 1
GND 2
L 3
PJ1L
LA1
TF1

1075C18TAA

Step	Check Item	Result	Action
1	Do as described below to check whether the Exposure Lamp LA1 turns ON: 1) Reset the malfunction. 2) Set the copier into Function.	-	—
	3) Select F3 and press the Start key. Does LA1 turn ON at this time?	YES	● Go to Step 7.
2	By making a “Board Check” in “I/O Check”, is C0300 displayed?	YES	● Change PWB-A.
3	Unplug PJ2L (3P) from PWB-L. Is there continuity across 1 and 3 on the LA1 side?	YES	● Go to Step 5.
4	Is there continuity across TF1?	YES	● Change LA1.
		NO	● Reset TF1. ● Note that after resetting, Step 7 must be executed and PWB-J and the Optical Section Cooling Fan Motor checked.
5	Is there continuity across PJ2L (3P) and PJ1L (3P) on PWB-L?	NO	● Change PWB-L.
6	Is the voltage across PJ4J-1 and -3 on PWB-J the power supply voltage AC100V?	YES	● Change PWB-J.
		NO	● Check the power supply line.
7	Is the voltage across PJ22A-3A and GND 4.0V or less when the Power Switch is turned ON or the copier is in the standby state?	YES	● Clean the AE Sensor or change PWB-H.
		NO	● Change PWB-A.

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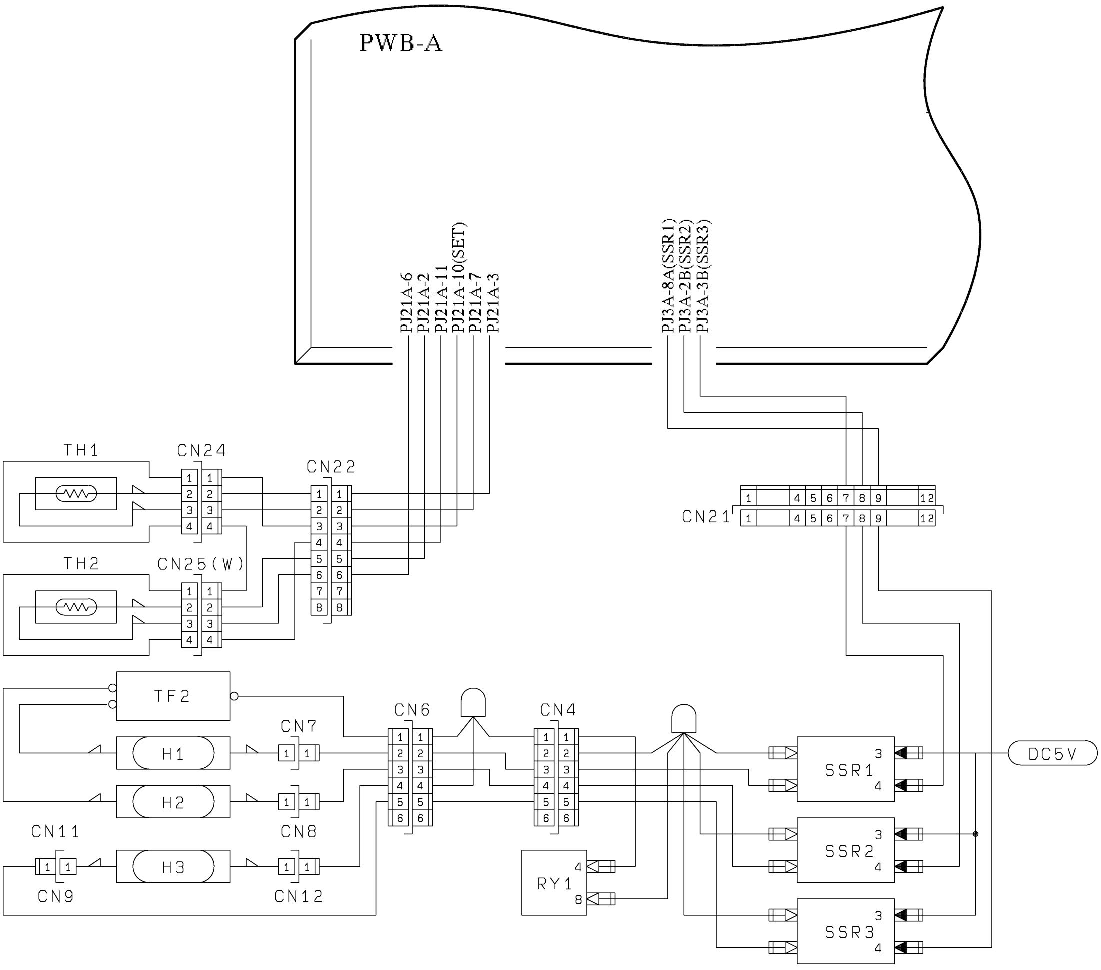
11) C0500: Warming-Up Failure

C0510: Upper Fusing Roller Abnormally Low Temperature

C0520: Upper Fusing Roller Abnormally High Temperature

Relevant Electrical Parts	
● Upper Fusing Roller Main Heater Lamp H1 ● Upper Fusing Roller Sub Heater Lamp H2 ● Fusing Roller Thermal Fuse TF2 ● Upper Fusing Roller Thermistor TH1	● Upper Fusing Roller Main Heater Lamp SSR SSR1 ● Upper Fusing Roller Sub Heater Lamp SSR SSR2 ● Master Board PWB-A


PWB-A
PJ21A-6
PJ21A-2
PJ21A-11
PJ21A-10(SET)
PJ21A-7
PJ21A-3
PJ3A-8A(SSR1)
PJ3A-2B(SSR2)
PJ3A-3B(SSR3)
TH1
CN24
CN22
CN21
TH2
CN25(W)
TF2
CN6
CN4
CN7
H1
H2
CN11
CN8
H3
CN9
CN12
RY1
SSR1
SSR2
SSR3
DC5V

1075C19TAA

◆C0500, C0510

Step	Check Item	Result	Action
1	When the Fusing Unit Front Door is removed and the Power Switch is turned ON, do the Upper Fusing Roller Main and Sub Heater Lamps H1 and H2 light up?	NO	● Go to Step 4.
2	Is TH1 connected securely or clean?	NO	● Connect TH1 securely or clean TH1.
3	Disconnect CN24 (4P). Is the resistance across CN24-2 and -3 on the Fusing Unit side infinite?	YES	● Change TH1.
		NO	● Change PWB-A.
4	With the Power Switch ON and the Front Door closed, check the H1 and H2 ON/OFF signals from the Master Board as described below: 1) Select "IC Port Data Check".	-	————————
	2) Is the data of P47 (H1) and P45 (H2) on PWB-A (IC1A) "0"?	NO	● Change PWB-A.
5	Disconnect CN6 (6P). Is there continuity across CN6-1, 2 and 3 on the Fusing Unit side?	YES	● Change SSR1 or SSR2.
		NO	● Check H1, H2 and Fusing Thermoswitch TF2 for continuity.

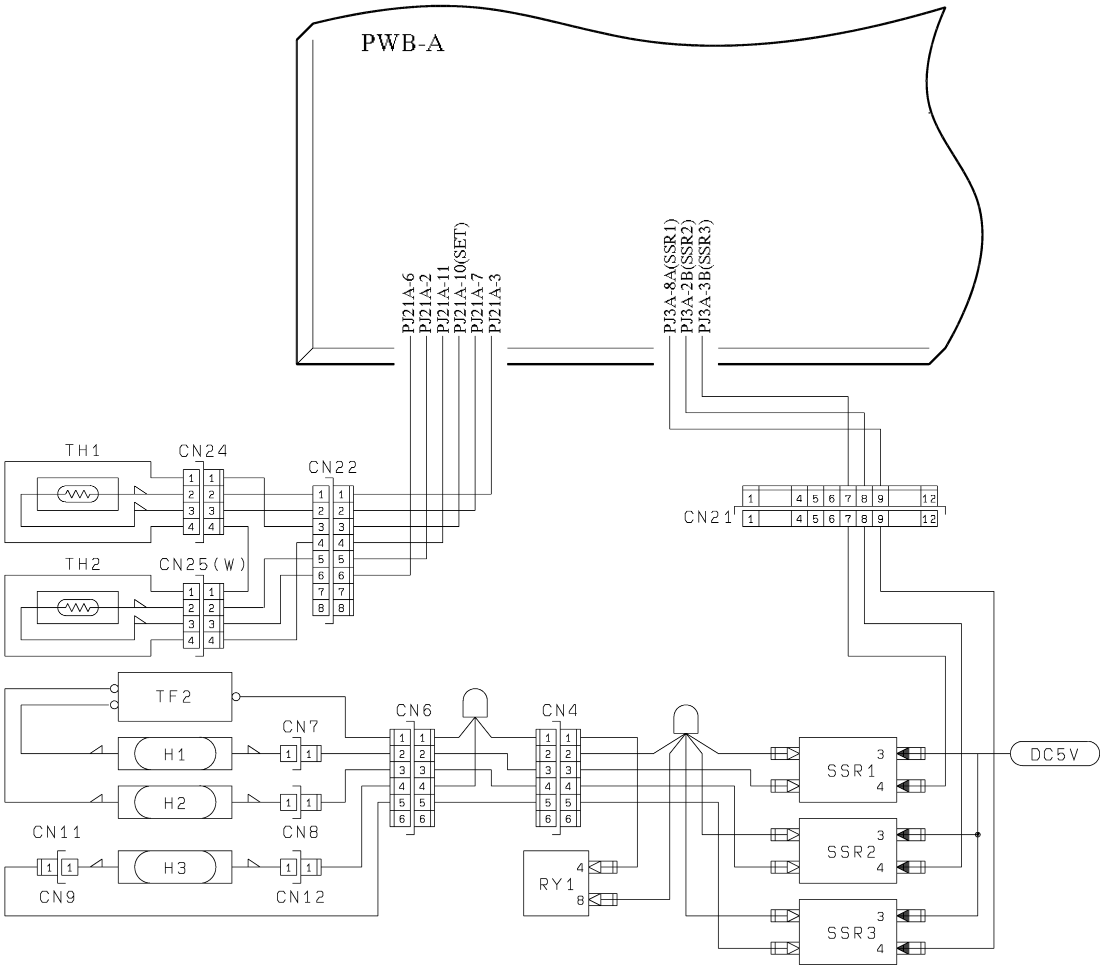
◆C0520

Step	Check Item	Result	Action
1	Do the Upper Fusing Roller Main and Sub Heater Lamps H1 and H2 remain lit up after the copier has completed warming up?	NO	● Go to Step 3.
2	By changing the H1 and H2 ON/OFF signals from the Master Board, check whether H1 and H2 are turned OFF or not as described below: 1) Select "IC Port Data Check".	-	————————
	2) Is the data of P47 (H1) and P45 (H2) on PWB-A (IC1A) "1"?	NO	● Change PWB-A.
	3) By pressing the "Change" key to change the data from "0" to "1", are H1 and H2 turned OFF?	NO	● Change SSR1 or SSR2.
3	Disconnect CN22 (8P). Is the circuit across CN22-1 and -2 on the Fusing Unit side shorted?	YES	● Change TH1.
		NO	● Change PWB-A.

1161SBT040212A

12) C0511: Lower Fusing Roller Abnormally Low Temperature
C0521: Lower Fusing Roller Abnormally High Temperature
C0540: Fusing Roller Thermistor Loading Failure

Relevant Electrical Parts	
● Lower Fusing Roller Heater Lamp H3 ● Lower Fusing Roller Thermistor TH2	● Lower Fusing Roller Heater Lamp SSR SSR3 ● Master Board PWB-A


PWB-A
PJ21A-6
PJ21A-2
PJ21A-11
PJ21A-10(SET)
PJ21A-7
PJ21A-3
PJ3A-8A(SSR1)
PJ3A-2B(SSR2)
PJ3A-3B(SSR3)
TH1
CN24
CN22
TH2
CN25(W)
CN21
TF2
CN7
H1
H2
CN6
CN4
CN11
CN8
H3
CN9
CN12
RY1
SSR1
SSR2
SSR3
DC5V

1075C19TAA

◆C0511

Step	Check Item	Result	Action
1	When the Fusing Unit Front Cover is removed and the copier has completed warming-up, does the Lower Fusing Roller Heater Lamp H3 light up?	NO	● Go to Step 4.
2	Is TH2 connected securely or clean?	NO	● Connect TH2 securely or clean TH2.
3	Disconnect CN25 (4P). Is the resistance across CN25-2 and -3 on the Fusing Unit side infinite?	YES	● Change TH2.
		NO	● Change PWB-A.
4	After the copier has completed warming-up, is the voltage across PJ3A-3B on PWB-A and GND DC0V? (When H3 is turned ON.)	NO	● Change PWB-A.
5	Disconnect CN6 (6P). Is there continuity across CN6-4 and -5 on the Fusing Unit side?	YES	● Change SSR3.
		NO	● Change H3.

◆C0521

Step	Check Item	Result	Action
1	After the copier has completed warming up, does the Lower Fusing Roller Heater Lamp H3 remain lit up?	NO	● Go to Step 3.
2	By changing the H3 ON/OFF signal from the Master Board, check whether H1 is turned OFF or not as described below: 1) Select “IC Port Data Check”.	-	—
	2) Is the data of P44 on PWB-A (IC1A) “1”?	NO	● Change PWB-A.
	3) By pressing the “Change” key to change the data from “0” to “1”, is H3 turned OFF?	NO	● Change SSR3.
3	Disconnect CN22 (8P). Is the circuit across CN22-5 and -6 on the Fusing Unit side shorted?	YES	● Change TH3.
		NO	● Change PWB-A.

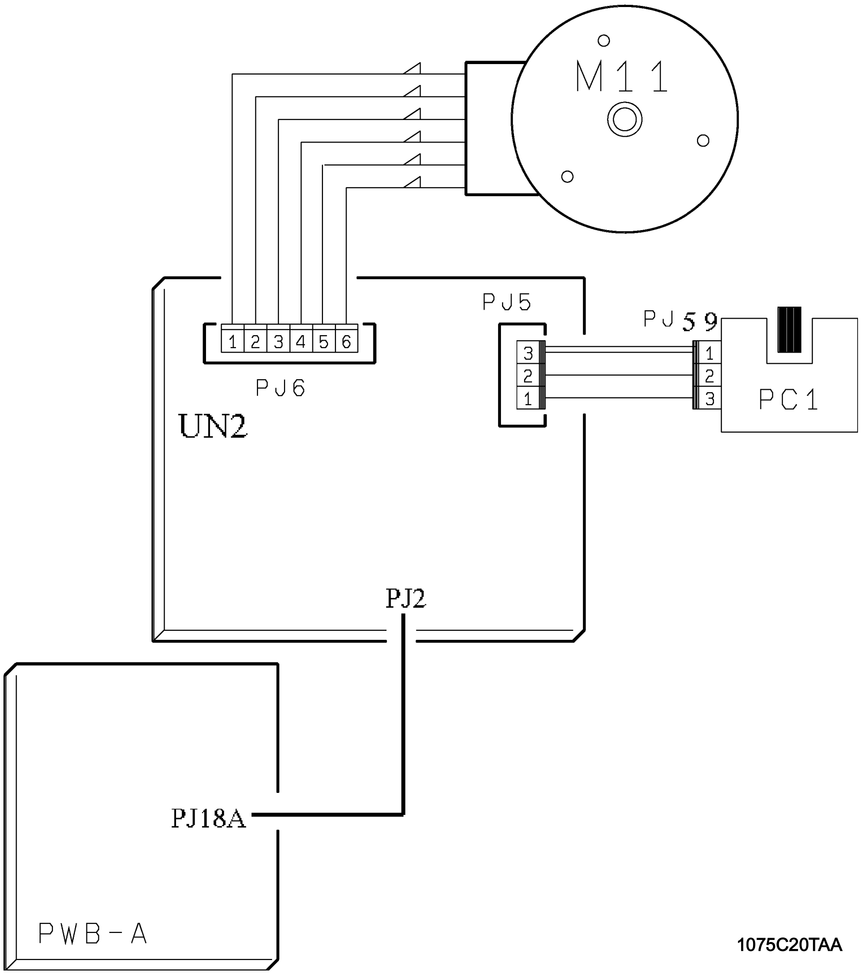
◆C0540

Step	Check Item	Result	Action
1	Check the Thermistor Loading signal as described below: 1) Select “IC Port Data Check”.	-	—
	2) Is the data of APB0 on PWB-A (IC3A) “L”?	YES	● Change PWB-A.
		NO	● Check CN22 (8P), CN24 (4P) and CN25 (4P).

1161SBT040213A

13) C0600: Scanner Motor M11 Malfunction
C0601: SCP Board UN2 Malfunction
C0650: Scanner Reference Position Sensor PC1 Malfunction
C06F0 to C06F9: SHOME, IMAGE SCEND Signal Failure

Relevant Electrical Parts	
● Scanner Motor M11 ● Scanner Reference Position Sensor PC1	● Master Board PWB-A ● SCP Board UN2


M11
PJ5
PJ59
1
2
3
4
5
6
PJ6
3
2
1
PC1
UN2
PJ2
PJ18A
PWB-A

1075C20TAA

◆C0600, C0601

Step	Check Item	Result	Action
1	Is PJ6 securely plugged into UN2?	NO	● Plug it in securely.
2	When the Power Switch is turned ON, is the voltage accross PJ6-6 on UN2 and GND DC24V?	NO	● Check the DC5V line.
3	Is C0600 being displayed?	YES	● Change M11.
4	Is C0601 being displayed?	YES	● Change UN2.

◆C0650

Step	Check Item	Result	Action
1	Is PJ5 securely plugged into UN2 and PJ59 into PC1?	NO	● Plug them in securely.
2	Is the Light Blocking Plate installed properly?	YES	● Change PC1.
		NO	● Reinstall.

◆C06F0 to C06F9

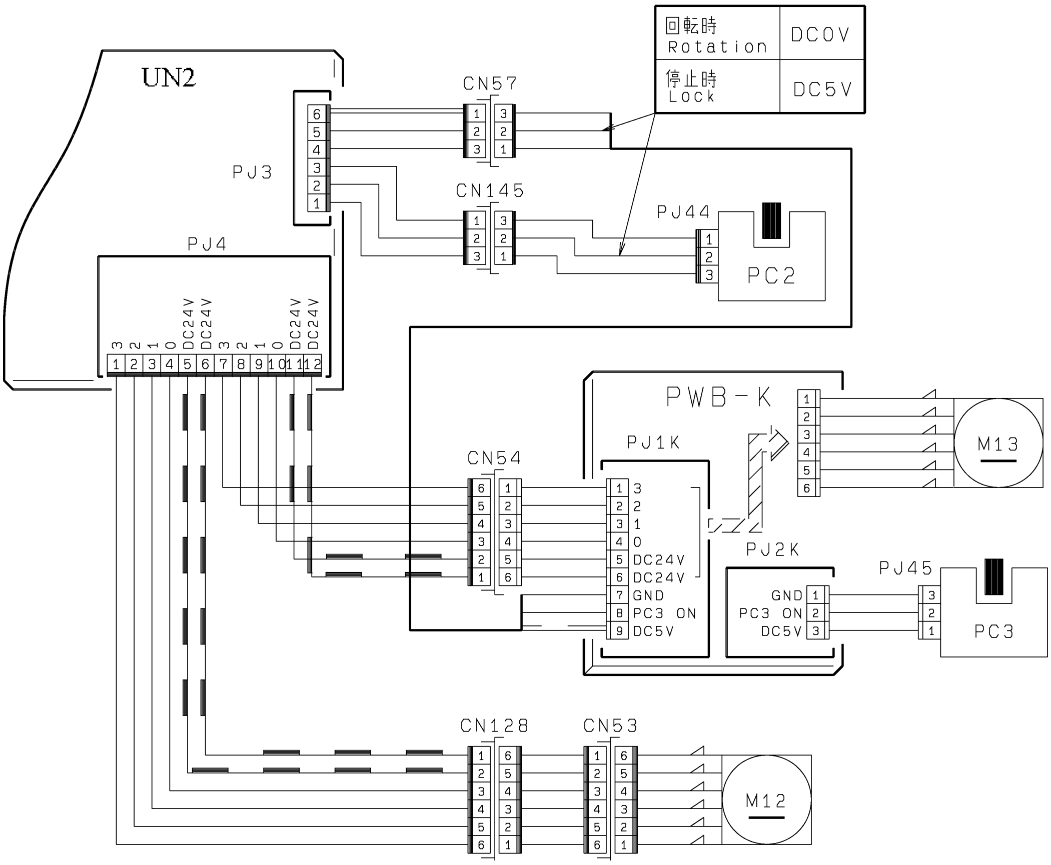
Step	Check Item	Result	Action
1	Is PJ18A securely plugged into PWB-A and PJ2 into UN2?	YES	● Change PWB-A or UN2.
		NO	● Plug them in securely.

1161SBT040214A

14) C0610: Lens X-Direction Motion Failure

C0611: Lens Y-Direction Motion Failure

Relevant Electrical Parts	
● Lens X-Direction Drive Motor M12 ● Lens Y-Direction Drive Motor M13 ● Lens X-Direction Reference Position Sensor PC2	● Lens Y-Direction Reference Position Sensor PC3 ● SCP Board UN2 ● Lens Flat Cable PWB-K



回転時 Rotation DC0V
停止時 Lock DC5V
UN2
PJ3
PJ4
3 2 1 0 DC24V DC24V 3 2 1 0 DC24V DC24V
CN57
CN145
PJ44
PC2
CN54
PWB-K
PJ1K
3 2 1 0 DC24V DC24V GND PC3 ON DC5V
PJ2K
GND PC3 ON DC5V
PJ45
PC3
M13
CN128
CN53
M12

1075C21TAA

◆C0610

Step	Check Item	Result	Action
1	When PC2 is blocked, does the voltage across PJ3-2 on UN2 and GND change from DC5V to DC0V?	NO	● Change PC2.
2	By opening and closing the Front Door, does the Lens move in the X direction?	YES	● Check the Cable Drive Section for any overload.
		NO	● Change M12 or UN2.

◆C0611

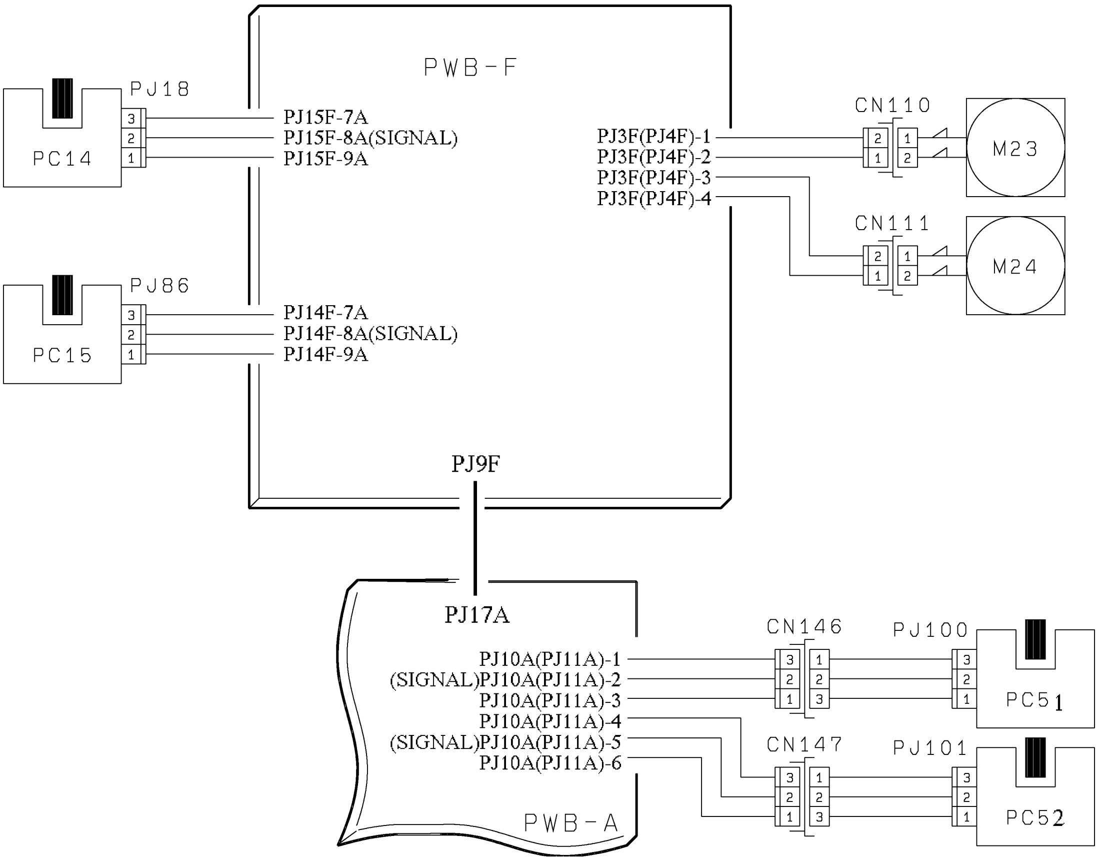
Step	Check Item	Result	Action
1	When PC3 is blocked, does the voltage across PJ3-5 on UN2 and GND change from DC5V to DC0V?	NO	● Go to Step 3.
2	When PC3 is blocked, does the voltage across PJ2K-2 on PWB-K and GND change from DC5V to DC0V?	YES	● Check PWB-K. ● Change PWB-K.
		NO	● Change PC3.
3	When the paper size has been changed, does the Lens attempt to move in the Y direction?	YES	● Check the Lens Drive Section for any overload.
		NO	● Change M11 or UN2.

1161SBT040215A

15) C0910: 2nd Drawer Lift-Up Failure
C0914: 2nd Drawer Lift-Up Motor M24's Failure to Turn
C0920: 1st Drawer Lift-Up Failure
C0924: 1st Drawer Lift-Up Motor M23's Failure to Turn

Relevant Electrical Parts	
● 1st Drawer Lift-Up Motor M23 ● 2nd Drawer Lift-Up Motor M24 ● 1st Drawer Lift-Up Sensor PC14 ● 2nd Drawer Lift-Up Sensor PC15	● 1st Drawer Lift-Up Motor Pulse Sensor PC51 ● 2nd Drawer Lift-Up Motor Pulse Sensor PC52 ● Master Board PWB-A ● Drawer S/P Board PWB-F

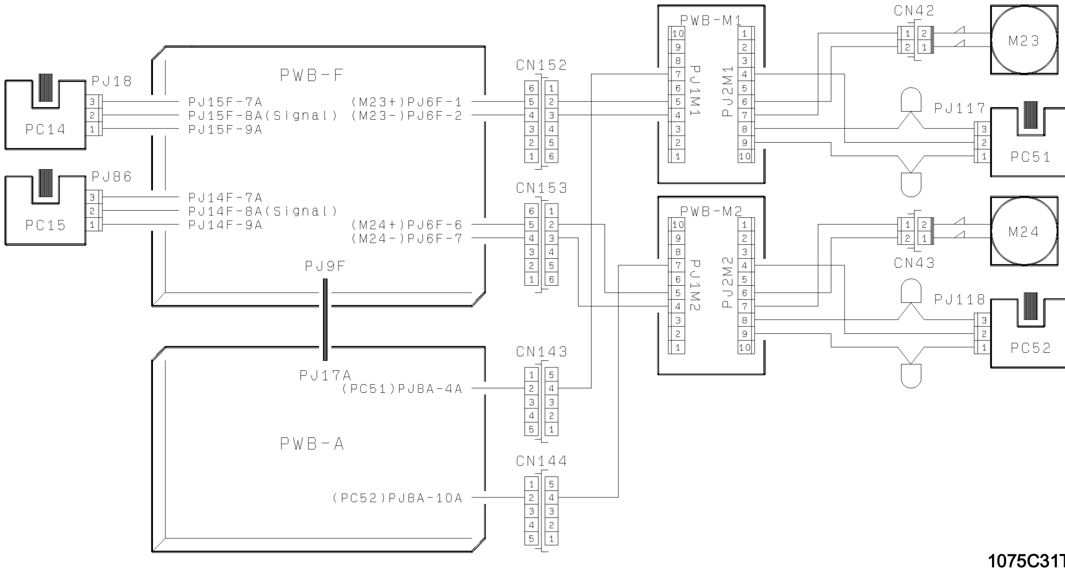
<Metric Areas>



PWB-F
PJ18
PC14
PJ15F-7A
PJ15F-8A(SIGNAL)
PJ15F-9A
PJ86
PC15
PJ14F-7A
PJ14F-8A(SIGNAL)
PJ14F-9A
PJ3F(PJ4F)-1
PJ3F(PJ4F)-2
PJ3F(PJ4F)-3
PJ3F(PJ4F)-4
CN110
M23
CN111
M24
PJ9F
PJ17A
PJ10A(PJ11A)-1
(SIGNAL)PJ10A(PJ11A)-2
PJ10A(PJ11A)-3
PJ10A(PJ11A)-4
(SIGNAL)PJ10A(PJ11A)-5
PJ10A(PJ11A)-6
PWB-A
CN146
PJ100
PC51
CN147
PJ101
PC52

1075C30TCA

<Inch Areas>


PWB-F
PWB-A
PWB-M1
PWB-M2
PJ18
PC14
PJ86
PC15
PJ15F-7A
PJ15F-8A(Signal)
PJ15F-9A
PJ14F-7A
PJ14F-8A(Signal)
PJ14F-9A
(M23+)PJ6F-1
(M23-)PJ6F-2
(M24+)PJ6F-6
(M24-)PJ6F-7
PJ9F
PJ17A
(PC51)PJ8A-4A
(PC52)PJ8A-10A
CN152
CN153
CN143
CN144
PJ1M1
PJ2M1
PJ1M2
PJ2M2
CN42
CN43
M23
M24
PJ117
PC51
PJ118
PC52

1075C31TDA

◆C0910

Step	Check Item	Result	Action
1	Slide out the 2nd Drawer and check the 2nd Drawer Lift-Up Sensor PC15 as described below: 1) Select “IC Port Data Check”.	-	———
	2) <Metric Areas> Is the data of PC0 on PWB-F (3MJ) (IC1F) “$\boxed{H}$”? <Inch Areas> Is the data of PC0 on PWB-F (3MC) (IC1F) “$\boxed{H}$”?	NO	● Check the Paper Take-Up Roll Assy.
	3) Slide the 2nd Drawer back in to complete lift-up. (PC15: blocked).	-	———
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of PC0 on PWB-F (3MJ) (IC1F) changed from “$\boxed{H}$” to “$\boxed{L}$”? <Inch Areas> Has the data of PC0 on PWB-F (3MC) (IC1F) changed from “$\boxed{H}$” to “$\boxed{L}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC15.

◆C0920

Step	Check Item	Result	Action
1	Slide out the 1st Drawer and check the 1st Drawer Lift-Up Sensor PC14 as described below: 1) Select “IC Port Data Check”.	-	———
	2) <Metric Areas> Is the data of PD1 on PWB-F (3MJ) (IC1F) “$\boxed{H}$”? <Inch Areas> Is the data of PD1 on PWB-F (3MC) (IC1F) “$\boxed{H}$”?	NO	● Check the Paper Take-Up Roll Assy.
	3) Slide the 1st Drawer back in to complete lift-up. (PC14: blocked).	-	———
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of PD1 on PWB-F (3MJ) (IC1F) changed from “$\boxed{H}$” to “$\boxed{L}$”? <Inch Areas> Has the data of PD1 on PWB-F (3MC) (IC1F) changed from “$\boxed{H}$” to “$\boxed{L}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC14.

◆C0914

Step	Check Item	Result	Action
1	Slide out the 2nd Drawer and slide it back in. Does the 2nd Drawer Lift-Up Motor M24 rotate?	YES	● Go to Step 3.
2	When the 2nd Drawer is slid in, does the voltage across PJ4F-3 (Metric Areas) or PJ6F-3 (Inch Areas) on PWB- F and GND change from DC0V to DC24V and then change to DC0V again?	YES	● Change M24.
		NO	● Change PWB-F or PWB-A.
3	While M24 is rotating, does the voltage across PJ11A-5 (Metric Areas) or PJ8A-10A (Inch Areas) on PWB-A and GND change in the range DC0V to DC5V?	YES	● Change PWB-F or PWB-A.
		NO	● Check the inside of the Lift-Up Motor Assy. ● Change PC52.

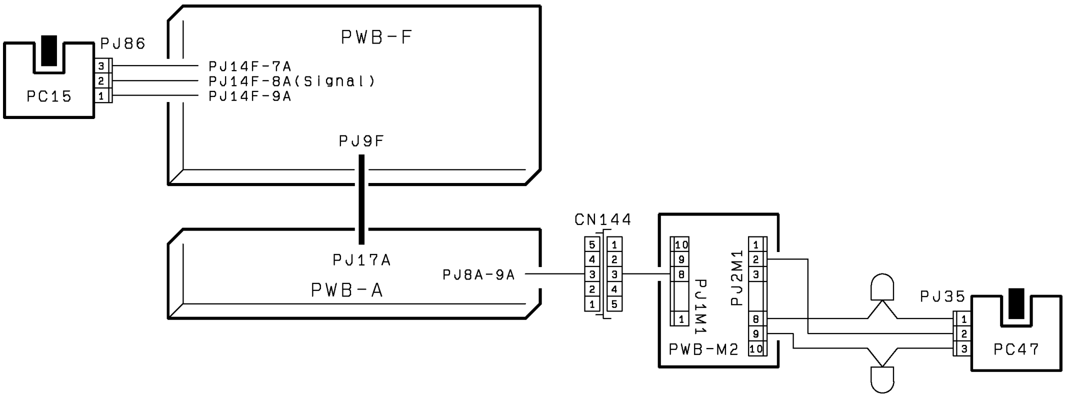
◆C0924

Step	Check Item	Result	Action
1	Slide out the 1st Drawer and slide it back in. Does the 1st Drawer Lift-Up Motor M23 rotate?	YES	● Go to Step 3.
2	When the 1st Drawer is slid in, does the voltage across PJ4F-1 (Metric Areas) or PJ6F-1 (Inch Areas) on PWB- F and GND change from DC0V to DC24V and then change to DC0V again?	YES	● Change M23.
		NO	● Change PWB-F or PWB-A.
3	While M23 is rotating, does the voltage across PJ11A-2 (Metric Areas) or PJ8A-4A (Inch Areas) on PWB-A and GND change in the range of DC0V to DC5V?	YES	● Change PWB-F or PWB-A.
		NO	● Check the inside of the Lift-Up Motor Assy. ● Change PC51.

1161SBT040216A

16) C0911: 2nd Drawer Lower-Down Failure (Inch Areas)
C0912: 2nd Drawer Lower-Down Failure, 2nd Drawer Lock Failure
C0913: 2nd Drawer Lock Failure
C0916: 2nd Drawer Lock Release Failure

Relevant Electrical Parts	
● 2nd Drawer Lift-Up Sensor PC15 ● 2nd Drawer Lower Limit Position Sensor PC47 ● Master Board PWB-A	● Drawer S/P Board PWB-F ● 2nd Drawer Flexible Printed Circuit PWB-M2


PJ86
PWB-F
PC15
3
2
1
PJ14F-7A
PJ14F-8A(Signal)
PJ14F-9A
PJ9F
PJ17A
PWB-A
PJ8A-9A
CN144
5
4
3
2
1
1
2
3
4
5
10
9
8
1
PJ1M1
PJ2M1
1
2
3
8
9
10
PWB-M2
PJ35
1
2
3
PC47

1075C37TCA

◆C0911 (Inch Areas)

Step	Check Item	Result	Action
1	Slide out the 2nd Drawer and check the 2nd Drawer Lift-Up Sensor PC15 as described below: 1) Select “IC Port Data Check”.	-	———
	2) Is the data of PC0 on PWB-F (3MC) (IC1F) “$\boxed{H}$”?	NO	● Check the Paper Take-Up Roll Assy.
	3) Slide the 2nd Drawer back in and press the 2nd Drawer Paper Descent Key to complete lift-up. (PC15: blocked)	-	———
	4) Select “IC Port Data Check” again. Has the data of PC0 on PWB-F (3MC) (IC1F) changed from “$\boxed{H}$” to “$\boxed{L}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PWB-M2 or PC15.

◆C0912, C0913 (Inch Areas)

Step	Check Item	Result	Action
1	Check the 2nd Drawer Lower Limit Position Sensor PC47 as described below: 1)Select “IC Port Data Check”.	-	———
	<PC47 is blocked> 2) Is the data of APA5 on PWB-A (3MC) (IC5A) “$\boxed{L}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PWB-M2 or PC47.
	<PC47 is not blocked> 3) Is the data of APA5 on PWB-A (3MC) (IC5A) “$\boxed{H}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PWB-M2 or PC47.

◆C0916 (Inch Areas)

Step	Check Item	Result	Action
1	Remove the Right Door, push the Lock Lever forward with a flat- blade screwdriver to unlock and slide out the 2nd Drawer.	-	———
2	Is the Lock Release Spring Installed properly?	NO	● Reinstall or change.
3	Are the Lock Lever and Torsion Spring installed properly?	NO	● Reinstall or change.

1161SBT040217A

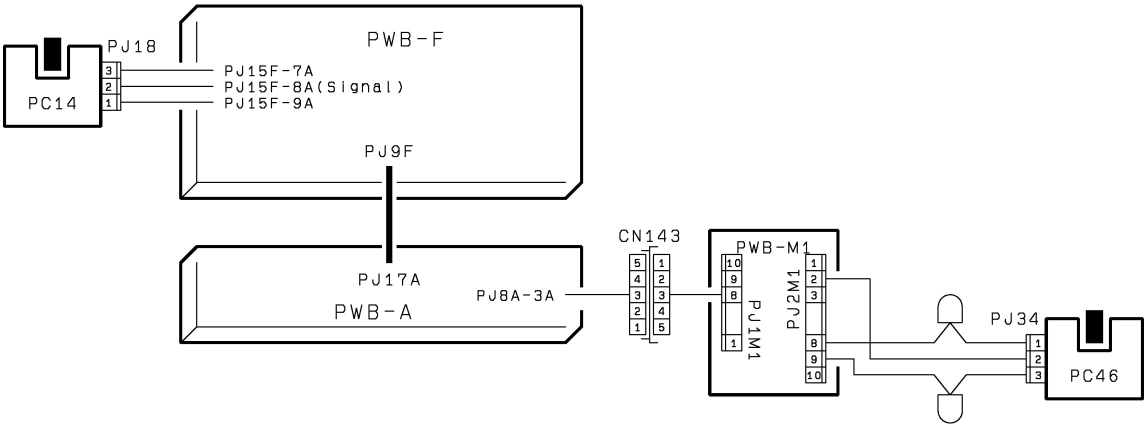
17) C0921: 1st Drawer Lower-Down Failure (Inch Areas)

C0922: 1st Drawer Lower-Down Failure, 1st Drawer Lock Failure

C0923: 1st Drawer Lock Failure

C0926: 1st Drawer Lock Release Failure

Relevant Electrical Parts	
● 1st Drawer Lift-Up Sensor PC14 ● 1st Drawer Lower Limit Position Sensor PC46 ● Master Board PWB-A	● Drawer S/P Board PWB-F ● 1st Drawer Flexible Printed Circuit PWB-M1


PC14
PJ18
3
2
1
PWB-F
PJ15F-7A
PJ15F-8A(Signal)
PJ15F-9A
PJ9F
PJ17A
PWB-A
PJ8A-3A
CN143
5
4
3
2
1
1
2
3
4
5
PWB-M1
10
9
8
1
PJ1M1
PJ2M1
1
2
3
8
9
10
PJ34
1
2
3
PC46

1075C36TCA

◆C0921 (Inch Areas)

Step	Check Item	Result	Action
1	Slide out the 1st Drawer and check the 1st Drawer Lift-Up Sensor PC14 as described below: 1) Select “IC Port Data Check”.	-	—
	2) Is the data of PD1 on PWB-F (3MC) (IC1F) “$\boxed{H}$”?	NO	● Check the Paper Take-Up Roll Assy.
	3) Slide the 1st Drawer back in and press the 1st Drawer Paper Descent key to complete lift-up. (PC14: blocked)	-	—
	4) Select ”IC Port Data Check” again. Has the data of PD1 on PWB-F (3MC) (IC1F) changed from “$\boxed{H}$” to “$\boxed{L}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PWB-M1 or PC14.

◆C0922, C0923 (Inch Areas)

Step	Check Item	Result	Action
1	Check the 1st Drawer Lower Limit Position Sensor PC46 as described below: 1) Select “IC Port Data Check”.	-	—
	<PC46 is blocked> 2) Is the data of APA1 on PWB-A (3MC) (IC5A) “$\boxed{L}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PWB-M1 or PC46.
	<PC46 is not blocked> 3) Is the data of APA1 on PWB-A (3MC) (IC5A) “$\boxed{H}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PWB-M1 or PC46.

◆C0926 (Inch Areas)

Step	Check Item	Result	Action
1	Remove the Right Door, push the Lock Lever forward with a flat- blade screwdriver to unlock and slide out the 1st Drawer.	-	—
2	Is the Lock Release Spring Installed properly?	NO	● Reinstall or change.
3	Are the Lock Lever and Torsion Spring installed properly?	NO	● Reinstall or change.

1161SBT040215A

18) C0990: Main Tray Upward Motion Failure

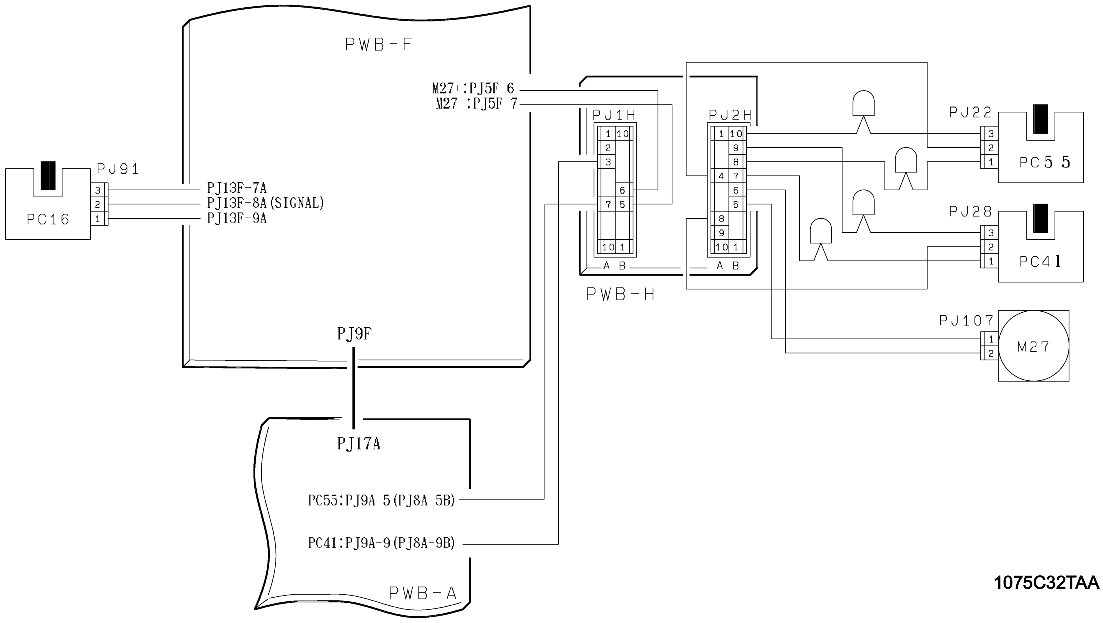
C0991: Main Tray Downward Motion Failure

C0992: Main Tray Downward Motion Failure

C0993: Main Tray Upward Motion Failure

C0994: 3rd Drawer Elevator Motor M27’s Failure to Turn

Relevant Electrical Parts	
● 3rd Drawer Elevator Motor M27	● 3rd Drawer Paper Descent Key UN11
● 3rd Drawer Lift-Up Sensor PC16	● Master Board PWB-A
● 3rd Drawer Elevator Motor Pulse Sensor PC55	● Drawer S/P Board PWB-F
● 3rd Drawer Tray Lower Position Sensor PC41	● 3rd Drawer Flexible Printed Circuit PWB-H


PWB-F
M27+:PJ5F-6
M27-:PJ5F-7
PJ91
PC16
PJ13F-7A
PJ13F-8A(SIGNAL)
PJ13F-9A
PJ1H
PJ2H
PWB-H
PJ22
PC55
PJ28
PC41
PJ107
M27
PJ9F
PJ17A
PC55:PJ9A-5(PJ8A-5B)
PC41:PJ9A-9(PJ8A-9B)
PWB-A

1075C32TAA

◆C0990, C0991

Step	Check Item	Result	Action
1	Slide out the 3rd Drawer and check the 3rd Drawer Lift-Up Sensor PC16 as described below: 1) Select “IC Port Data Check”.	-	—
	2) <Metric Areas> Is the data of PC3 on PWB-F (3MJ) (IC2F) “H”? <Inch Areas> Is the data of PC3 on PWB-F (3MC) (IC2F) “H”?	NO	● Check the Paper Take-Up Roll Assy.
	3) Slide the 3rd Drawer back in to complete lift-up. (PC16: blocked).	-	—
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of PC3 on PWB-F (3MJ) (IC2F) changed from “H” to “L”? <Inch Areas> Has the data of PC3 on PWB-F (3MC) (IC2F) changed from “H” to “L”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC16.

◆C0992, C0993

Step	Check Item	Result	Action
1	Slide out the 3rd Drawer and check the 3rd Drawer Tray Lower Position Sensor PC41 as described below: 1) Select “IC Port Data Check”.	-	———
	2) <Metric Areas> Is the data of APB1 on PWB-A (3MJ) (IC5A) “$\boxed{L}$”? <Inch Areas> Is the data of APB1 on PWB-A (3MC) (IC5A) “$\boxed{L}$”?	NO	● Check that the Main Tray is in the lowermost position.
	3) With the 3rd Drawer slid out, lift up the Main Tray to unblock PC41.	-	———
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of APB1 on PWB-A (3MJ) (IC5A) changed from “$\boxed{L}$” to “$\boxed{H}$”? <Inch Areas> Has the data of APB1 on PWB-A (3MC) (IC5A) changed from “$\boxed{L}$” to “$\boxed{H}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC41/PWB-H.

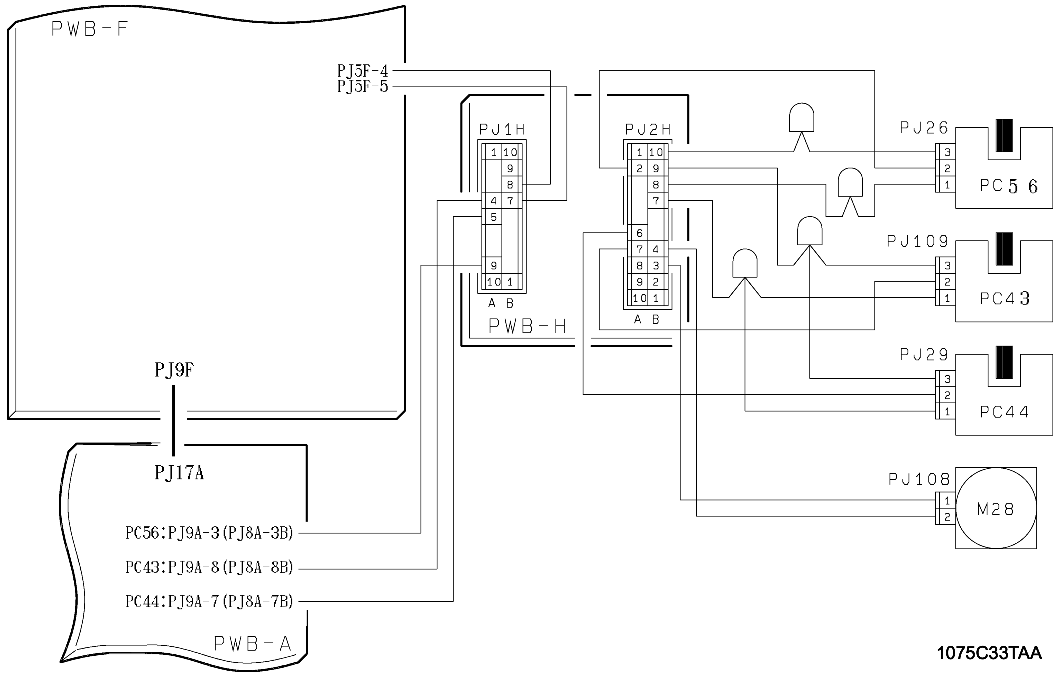
◆C0994

Step	Check Item	Result	Action
1	Does the 3rd Drawer Elevator Motor M27 rotate when the Drawer Paper Descent Key is pressed? (Does the Main Tray descend?)	YES	● Go to Step 3.
2	When the 3rd Drawer is slid in or the Drawer Paper Descent Key is pressed, does the voltage across PJ5F-6 (ascent)/–7 (descent) on PWB-F and GND change from DC0V to DC24V?	YES	● Change M27. ● Check PWB-H
		NO	● Change PWB-F or PWB-A.
3	While M27 is rotating, does the voltage across PJ9A-5 (Inch Areas: PJ8A-5B) on PWB-A and GND change in the range of DC0V to DC5V?	YES	● Change PWB-F or PWB-A.
		NO	● Check the Pulse Discs, Gears, etc. ● Change PC55.

1161SBT040219A

19) C0998 : Shifter Transfer Failure
C0999 : Shifter Return Failure
C099A: Shifter Return Failure
C099b : Shifter Transfer Failure
C099C: 3rd Drawer Shift Motor M28's Failure to Turn

Relevant Electrical Parts	
● 3rd Drawer Shift Motor M28 ● 3rd Drawer Shift Motor Pulse Sensor PC56 ● 3rd Drawer Shifter Home Position Sensor PC43 ● 3rd Drawer Shifter Return Position Sensor PC44	● Master Board PWB-A ● Drawer S/P Board PWB-F ● 3rd Drawer Flexible Printed Circuit PWB-H


PWB-F
PJ5F-4
PJ5F-5
PJ1H
PJ2H
PWB-H
A B
PJ26
PC56
PJ109
PC43
PJ29
PC44
PJ108
M28
PJ9F
PJ17A
PC56:PJ9A-3(PJ8A-3B)
PC43:PJ9A-8(PJ8A-8B)
PC44:PJ9A-7(PJ8A-7B)
PWB-A

1075C33TAA

◆C0998, C0999

Step	Check Item	Result	Action
1	Slide out the 3rd Drawer and check the 3rd Drawer Shifter Return Position Sensor PC44 as described below: 1) Select “IC Port Data Check”.	–	—
	2) <Metric Areas> Is the data of APB3 on PWB-A (3MJ) (IC5A) “ $\boxed{H}$ ”? <Inch Areas> Is the data of APB3 on PWB-A (3MC) (IC5A) “ $\boxed{H}$ ”?	NO	• Check the position of the Shifter.
	3) With the 3rd Drawer slid out, lift up the Main Tray to unblock PC44.	–	—
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of APB3 on PWB-A (3MJ (IC5A) changed from “ $\boxed{H}$ ” to “ $\boxed{L}$ ”? <Inch Areas> Has the data of APB3 on PWB-A (3MC) (IC5A) changed from “ $\boxed{H}$ ” to “ $\boxed{L}$ ”?	YES	• Change PWB-F or PWB-A.
		NO	• Change PC44/PWB-H.

◆C099A, C099b

Step	Check Item	Result	Action
1	Slide out the 3rd Drawer and check the 3rd Drawer Shifter Home Position Sensor PC43 as described below: 1) Select “IC Port Data Check”.	–	———
	2) <Metric Areas> Is the data of APB2 on PWB-A (3MJ) (IC5A) “ $\boxed{L}$ ”? <Inch Areas> Is the data of APB2 on PWB-A (3MC) (IC5A) “ $\boxed{L}$ ”?	NO	● Check that the Shifter is in the home position.
	3) Remove the Shift Tray and Blocking Plate to unblock PC43.	–	———
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of APB2 on PWB-A (3MJ (IC5A) changed from “ $\boxed{L}$ ” to “ $\boxed{H}$ ”? <Inch Areas> Has the data of APB2 on PWB-A (3MC) (IC5A) changed from “ $\boxed{L}$ ” to “ $\boxed{H}$ ”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC43/PWB-H.

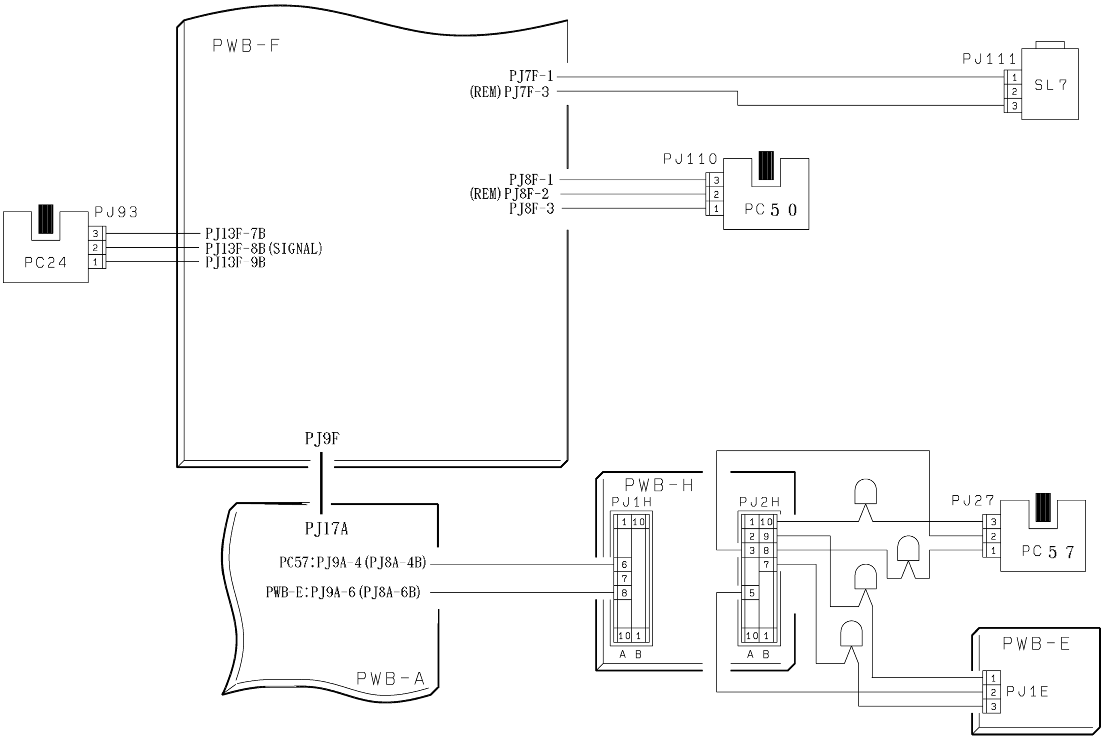
◆C099C

Step	Check Item	Result	Action
1	After loading a paper stack in the Shift Tray, slide the 3rd Drawer into the copier. Does the 3rd Drawer Shift Motor M28 rotate? (Is the paper stack transferred to the Main Tray?)	YES	● Go to Step 3.
2	In Step 1, does the voltage across PJ5F-4 (rightward motion) on PWB-F and GND change from DC0V to DC24V?	YES	● Change M28. ● Check PWB-H.
		NO	● Change PWB-F or PWB-A.
3	While M28 is rotating, does the voltage across PJ9A-3 (Inch Areas: PJ8A-3B) on PWB-A and GND change in the range of DC0V to DC5V?	YES	● Change PWB-F or PWB-A.
		NO	● Check the Pulse Discs, Gears, Belt, etc. ● Change PC56.

1161SBT040220A

20) C0996 : 3rd Drawer Lock Release Failure
C0F79 : Paper Empty Sensor Failure

Relevant Electrical Parts	
● 3rd Drawer Paper Empty Sensor PC24 ● 3rd Drawer Shift Tray Paper Empty Sensor PC57 ● 3rd Drawer Set Sensor PC50 ● 3rd Drawer Lock Solenoid SL7	● Master Board PWB-A ● 3rd Drawer Main Tray Paper Empty Board PWB-E ● Drawer S/P Board PWB-F ● 3rd Drawer Flexible Printed Circuit PWB-H


PWB-F
PJ7F-1
(REM) PJ7F-3
PJ111
1
2
3
SL7
PJ110
PJ8F-1
(REM) PJ8F-2
PJ8F-3
3
2
1
PC50
PJ93
3
2
1
PC24
PJ13F-7B
PJ13F-8B (SIGNAL)
PJ13F-9B
PJ9F
PJ17A
PC57:PJ9A-4 (PJ8A-4B)
PWB-E:PJ9A-6 (PJ8A-6B)
PWB-A
PWB-H
PJ1H
1
10
6
7
8
10
1
A
B
PJ2H
1
10
2
9
3
8
7
5
10
1
A
B
PJ27
3
2
1
PC57
PWB-E
1
2
3
PJ1E

1075C34TAA

◆C0996

Step	Check Item	Result	Action
1	Check the operation of the 3rd Drawer Lock Solenoid SL7 as described below: 1) Reset the malfunction. 2) Select “IC Port Data Check”.	–	――――――
	3) <Metric Areas> Is the data of PG0 on PWB-F (3MJ) (IC2F) “1” (SL7: deenergized)? <Inch Areas> Is the data of PG0 on PWB-F (3MC) (IC2F) “1” (SL7: deenergized)?	NO	● Change PWB-F or PWB-A.
	4) By pressing the “Change” key to change the data from “1” to “0”, does SL7 operate? (Make sure that SL7 makes a sound.)	YES	● Check the Drawer Lock mechanism.
		NO	● Change SL7.
2	Do as described below to check the 3rd Drawer Set Sensor PC50 when the 3rd Drawer is slid in: 1) Select “IC Port Data Check”.	–	――――――
	2) <Metric Areas> Is the data of PB3 on PWB-F (3MJ) (IC2F) “ $\boxed{L}$ ”? <Inch Areas> Is the data of PB3 on PWB-F (3MC) (IC2F) “ $\boxed{L}$ ”?	NO	● Check the 3rd Drawer Set Detecting Plate.
	3) Remove the Lower Rear Door and forcibly unlock the 3rd Drawer with a screwdriver to push it out. (PC50: not blocked)	–	――――――
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of PB3 on PWB-F (3MJ) (IC2F) changed from “ $\boxed{L}$ ” to “ $\boxed{H}$ ”? <Inch Areas> Has the data of PB3 on PWB-F (3MC) (IC2F) changed from “ $\boxed{L}$ ” to “ $\boxed{H}$ ”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC50.

◆C0F79

Step	Check Item	Result	Action
1	Does this failure occur when the Main Tray has completed upward motion?	YES	● Go to Step 3.
2	Does this failure occur when the Main Tray has completed downward motion or on completion of paper transfer from the Shift Tray to the Main Tray?	YES	● Go to Steps 4, 5.
3	With the paper stack lifting up the Actuator, check the 3rd Drawer Paper Empty Sensor PC24 as described below: 1) Select “IC Port Data Check”.	–	———
	2) <Metric Areas> Is the data of PC0 on PWB-F (3MJ) (IC2F) “$\boxed{L}$”? <Inch Areas> Is the data of PC0 on PWB-F (3MC) (IC2F) “$\boxed{L}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC24.
4	Slide out the 3rd Drawer, remove any paper on the Main Tray and do as described below to check the 3rd Drawer Main Tray Paper Empty Detecting Board PWB-E: 1) Select “IC Port Data Check”.	–	———
	2) <Metric Areas> Is the data of APB4 on PWB-A (3MJ) (IC5A) “$\boxed{L}$”? <Inch Areas> Is the data of APB4 on PWB-A (3MC) (IC5A) “$\boxed{L}$”?	NO	● Change PWB-E or PWB-H.
	3) Using a sheet of paper, block PWB-E.	–	———
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of APB4 on PWB-A (3MJ) (IC5A) changed from “$\boxed{L}$” to “$\boxed{H}$”? <Inch Areas> Has the data of APB4 on PWB-A (3MC) (IC5A) changed from “$\boxed{L}$” to “$\boxed{H}$”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PWB-E or PWB-H.

◆C0F79

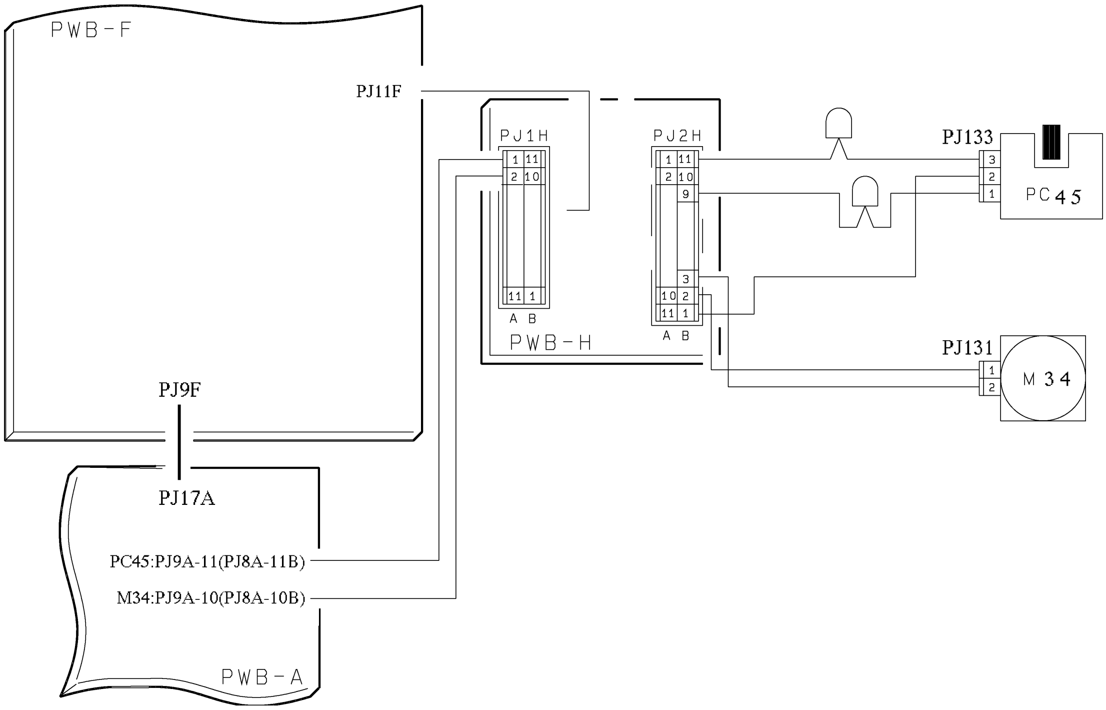
Step	Check Item	Result	Action
5	With no paper on the Shift Tray, check the 3rd Drawer Shift Tray Paper Empty Sensor PC57 as described below: 1) Select “IC Port Data Check”.	–	—
	2) <Metric Areas> Is the data of APB6 on PWB-A (3MJ) (IC5A) “ $\boxed{H}$ ”? <Inch Areas> Is the data of APB6 on PWB-A (3MC) (IC5A) “ $\boxed{H}$ ”?	NO	● Change PC60 or PWB-H.
	3) Using a sheet of paper, block PC57.	–	—
	4) Select “IC Port Data Check” again. <Metric Areas> Has the data of APB6 on PWB-A (3MJ) (IC5A) changed from “ $\boxed{H}$ ” to “ $\boxed{L}$ ”? <Inch Areas> Has the data of APB6 on PWB-A (3MC) (IC5A) changed from “ $\boxed{H}$ ” to “ $\boxed{L}$ ”?	YES	● Change PWB-F or PWB-A.
		NO	● Change PC57 or PWB-H.

1161SBT040221A

21) C099E: Shift Gate Retracted Position Failure

C099F: Shift Gate Advanced Position Failure

Relevant Electrical Parts	
● 3rd Drawer Shift Gate Position Sensor PC45 ● Shift Gate Motor M34 ● Master Board PWB-A	● Drawer S/P Board PWB-F ● 3rd Drawer Flexible Printed Circuit PWB-H


PWB-F
PJ11F
PJ1H
PJ2H
PJ133
PC45
PWB-H
PJ131
M34
PJ9F
PJ17A
PC45:PJ9A-11(PJ8A-11B)
M34:PJ9A-10(PJ8A-10B)
PWB-A

1161C01TAA

◆C099E/C099F

Step	Check Item	Result	Action
1	Load paper on the Shift Tray and slide the 3rd Drawer into the copier. Does Shift Gate Motor M34 turn? (Does the Shift Gate retract?)	YES	● Check step 3.
2	In step 1, does the voltage across PJ5F-2 on PWB-F and GND change from DC0V to DC24V?	YES	● Change M34. ● Check PWB-H.
		NO	● Change PWB-F or PWB-A.
3	Check that 3rd Drawer Shift Gate Position Sensor PC45 is properly blocked and unblocked and, using "IC Port Data Check," verify the following: Data of PWB-F (3MJ)(IC2F) PD1: Blocked: Low Unblocked: High Does the data change when the sensor is blocked and unblocked?	YES	● Change PWB-A.
		NO	● Change PWB-F and PWB-H. ● Change PC45.

1161SBT040222A

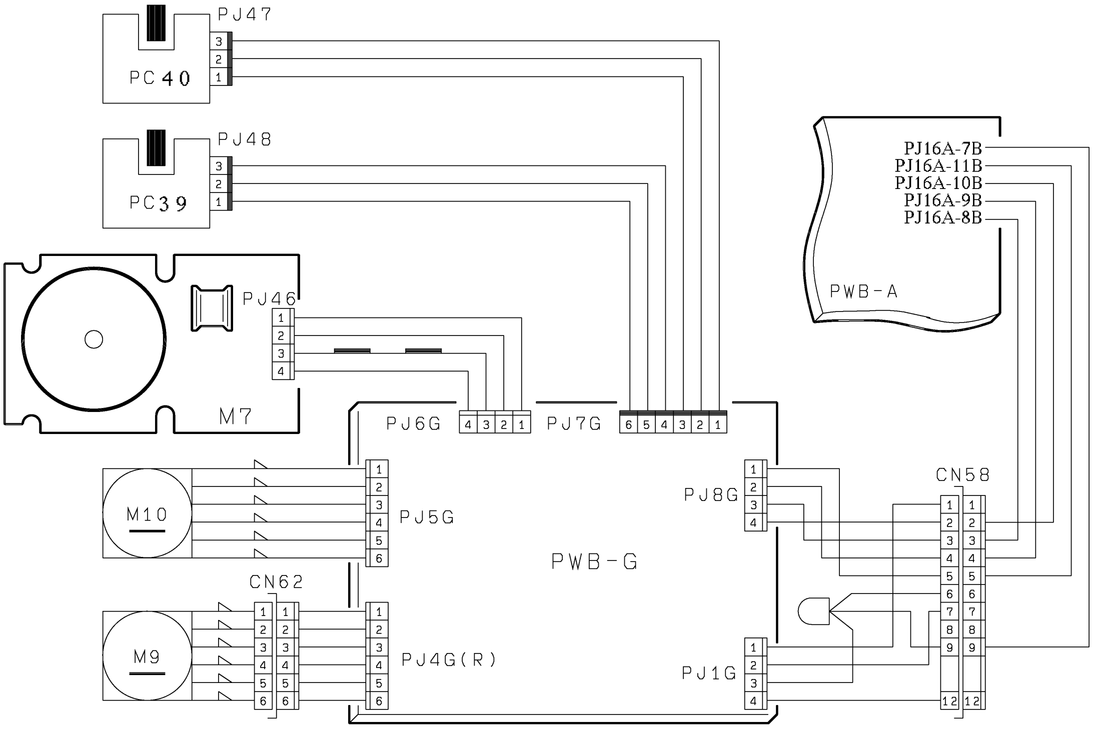
22) C0d00 : Duplex Unit Front/Rear Edge Guide Plates Home Position Detection Failure

C0d20 : Duplex Unit Trailing Gate Unit Home Position Detection Failure

C0d50 : Duplex Unit Drive Motor M7's Failure to Turn

C0d51 : Duplex Unit Drive Motor M7 Turning at Abnormal Timing

Relevant Electrical Parts	
● Duplex Unit Drive Motor M7 ● Gate Drive Motor M9 ● Front/Rear Edge Guide Drive Motor M10 ● Front/Rear Edge Guide Plate Home Position Sensor PC39	● Duplex Gate Home Position Sensor PC40 ● Master Board PWB-A ● Duplex Unit S/P Board PWB-G


PJ47
PC40
PJ48
PC39
PJ46
M7
PJ6G
PJ7G
PWB-A
PJ16A-7B
PJ16A-11B
PJ16A-10B
PJ16A-9B
PJ16A-8B
M10
PJ5G
PWB-G
PJ8G
CN58
CN62
M9
PJ4G(R)
PJ1G

1075C35TAA

◆C0d00

Step	Check Item	Result	Action
1	Slide out the Duplex Unit, move the Front/Rear Edge Guide Plates out of their home positions, and slide the Duplex Unit back in. At this time, does the Front/Rear Edge Guide Drive Motor M10 rotate?	YES	● Check for overload.
		NO	● Change M10. ● Change PWB-G or PWB-A.
2	Check the Front/Rear Edge Guide Plate Home Position Sensor PC39 as described below: 1) Block PC39. (The Front/Rear Edge Guide Plates are at their home positions.) 2) Select “IC Port Data Check”.	–	—
	3) Is the data of PC3 on PWB-G (Dup) (IC1G) “$\boxed{L}$”?	YES	● Change PWB-G or PWB-A.
		NO	● Change PC39.

◆C0d20

Step	Check Item	Result	Action
1	While turning the Screw Cam, move the Trailing Gate Unit to unblock the Duplex Gate Home Position Sensor PC40. When the Duplex Unit is slid into position in this state, does the Gate Drive Motor M9 rotate?	YES	● Check for overload.
		NO	● Change M9. ● Change PWB-G or PWB-A.
2	Check PC40 as described below: 1) Block PC40. (The Trailing Gate Unit is at its home position.) 2) Select “IC Port Data Check”.	–	—
	3) Is the data of PE0 on PWB-G (Dup) (IC1G) “$\boxed{L}$”?	YES	● Change PWB-G or PWB-A.
		NO	● Change PC40.

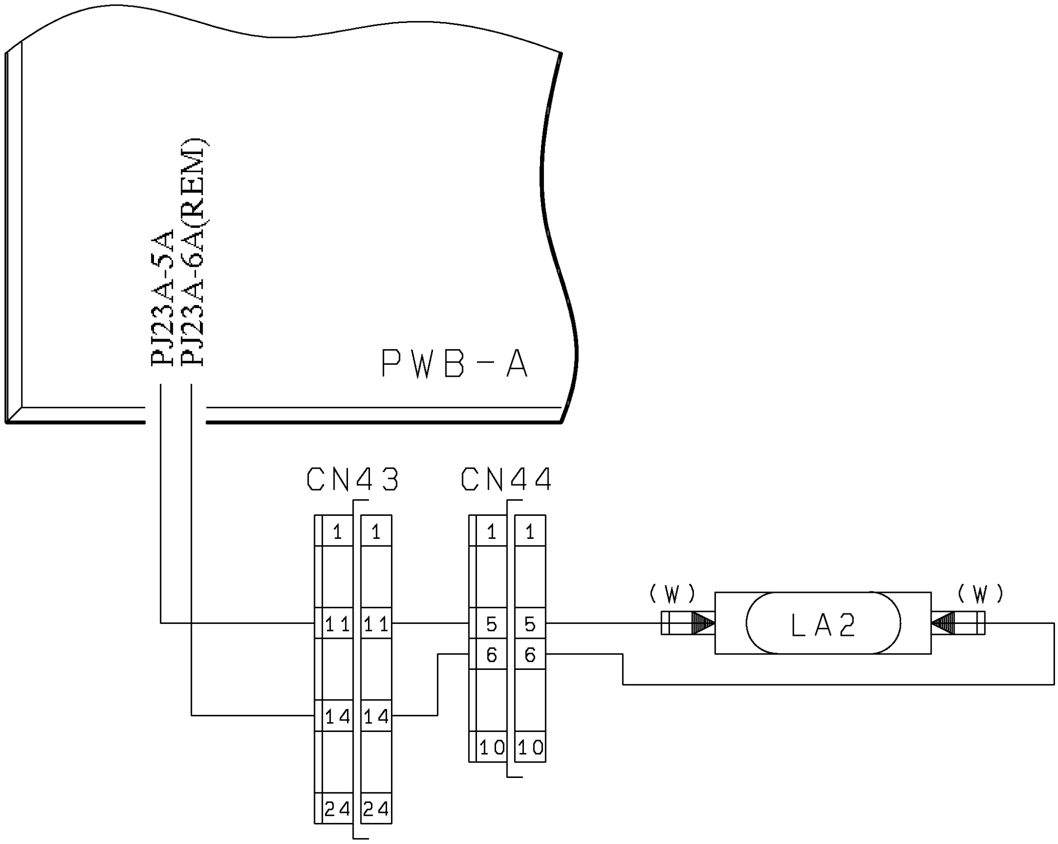
◆C0d50, C0d51

Step	Check Item	Result	Action
1	Check the Duplex Unit Drive Motor M7 as described below: 1) Reset the malfunction. 2) Select “IC Port Data Check”.	–	—
	3) Is the data of PB3 on PWB-G (Dup) (IC1G) “1”?	YES	● Change PWB-G or PWB-A.
	4) By pressing the “Change” key to change the data from “1” to “0”, does M7 rotate?	YES	● Check the rollers, gears, etc. for overload.
2	Do as described below to check the input signal (Duplex Unit Drive Motor Lock signal) when M7 is rotating: 1) Select “IC Port Data Check”.	–	—
	2) Is the data of PE1 on PWB-G (Dup) (IC1G) “$\boxed{H}$”?	YES	● Change PWB-G or PWB-A.
		NO	● Change M7.

1161SBT040223A

23) C0E00 : Main Erase Lamp LA2's Failure to Turn ON
C0E01 : Main Erase Lamp LA2 Turning ON at Abnormal Timing

Relevant Electrical Parts	
● Main Erase Lamp LA2	● Master Board PWB-A


PJ23A-5A
PJ23A-6A(REM)
PWB-A
CN43
CN44
1
11
14
24
1
5
6
10
(W)
LA2
(W)

1075C22TAA

◆C0E00

Step	Check Item	Result	Action
1	When the Start Key is turned ON, does the Main Erase Lamp LA2 light up?	YES	● Go to Step 3.
2	When the Start Key is turned ON, does the voltage across PJ23A-6A on PWB-A and GND change from DC0V to DC24V?	NO	● Change PWB-A.
3	Do as described below to check the Malfunction signal provided when the Main Erase Lamp LA2 is turned ON: 1) Select “IC Port Data Check”.	–	
	2) Is the data of APB7 on PWB-A (IC3A) “L”?	YES	● Change LA2.
		NO	● Change PWB-A.

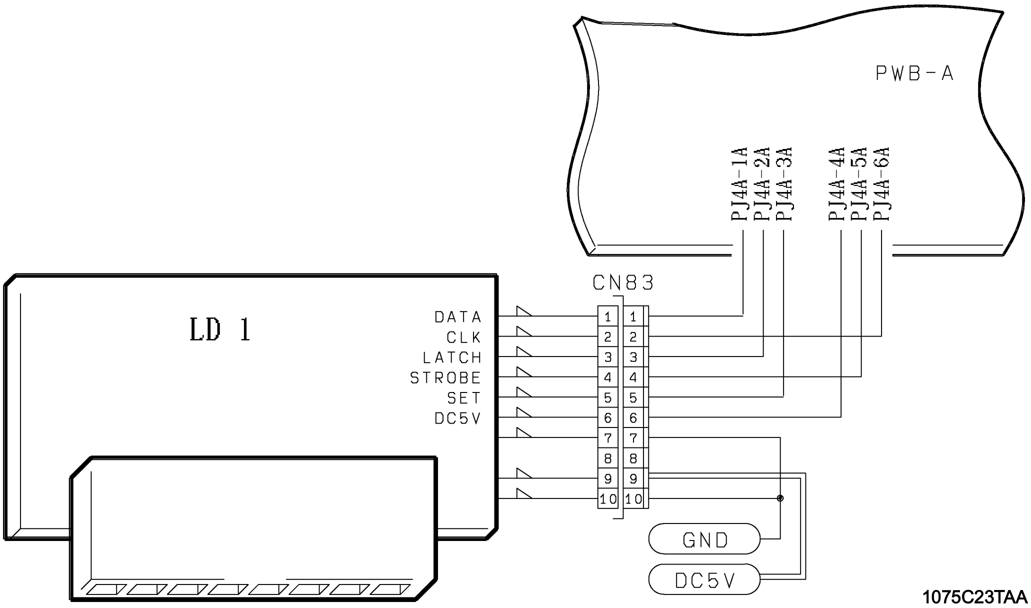
◆C0E01

Step	Check Item	Result	Action
1	When the copier is in the standby state, is the Main Erase Lamp LA2 OFF?	YES	● Go to Step 3.
2	When the copier is in the standby state, is the voltage across PJ23A-6A on PWB-A and GND DC0V?	NO	● Change PWB-A.
3	Do as described below to check the Malfunction signal provided when the Main Erase Lamp LA2 is turned OFF: 1) Select “IC Port Data Check”.	–	
	2) Is the data of APB7 on PWB-A (IC3A) “H”?	YES	● Change PWB-A.
		NO	● Change LA2.

1161SBT040224A

24) C0E20: Image Erase Lamp LD1’s Failure to Turn ON

Relevant Electrical Parts	
● Image Erase Lamp LD1	● Master Board PWB-A


PWB-A
PJ4A-1A
PJ4A-2A
PJ4A-3A
PJ4A-4A
PJ4A-5A
PJ4A-6A
CN83
LD 1
DATA
CLK
LATCH
STROBE
SET
DC5V
1
2
3
4
5
6
7
8
9
10
GND
DC5V

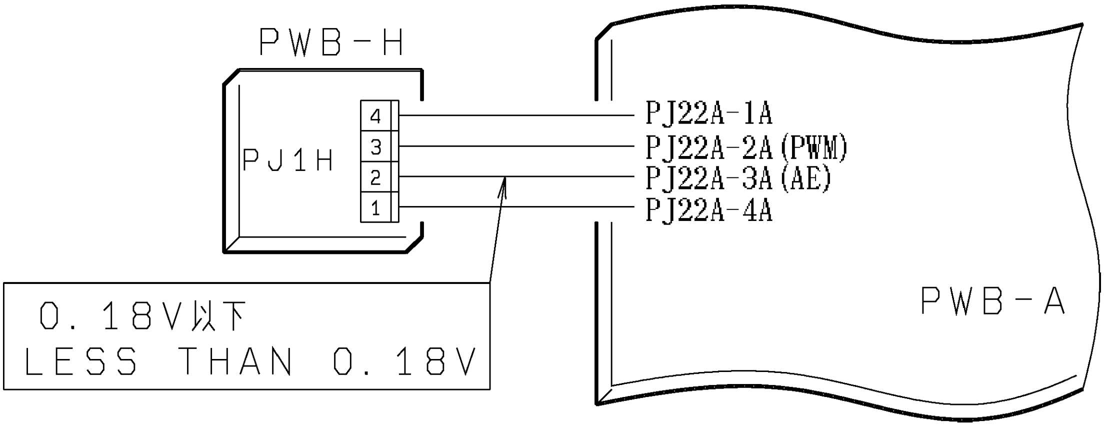
1075C23TAA

Step	Check Item	Result	Action
1	Check the Loading signal as described below: 1) Select “IC Port Data Check”.	–	――――――――
	2) Is the data of APA2 on PWB-A (IC4A) “$\boxed{L}$”?	YES	● Change PWB-A.
2	Is PJ4A and CN83 (10P) securely plugged into PWB-A?	YES	● Change LD1.
		NO	● Plug PJ4A and CN83 in securely.

1161SBT040225A

25) C0F10 : AE Sensor Board PWB-H Malfunction

Relevant Electrical Parts	
● Master Board PWB-A	● AE Sensor Board PWB-H


PWB-H
PJ1H
4
3
2
1
PJ22A-1A
PJ22A-2A (PWM)
PJ22A-3A (AE)
PJ22A-4A
PWB-A
0. 18V以下
LESS THAN 0. 18V

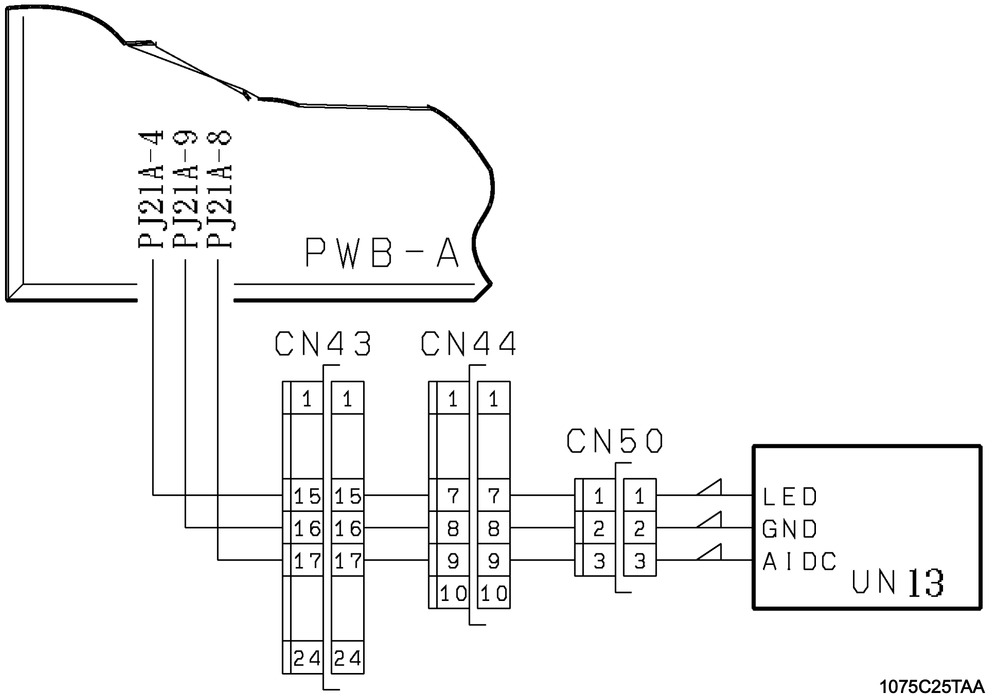
1075C24TAA

Step	Check Item	Result	Action
1	When the Scanner is at its home position, the Exposure Lamp is OFF, and the ADF is closed, is the voltage across PJ22A-3A on PWB-A and GND 0.18V or less?	YES	● Check the connection of PJ22A and PJ1H. ● Check the photo receiver of PWB-H for contamination, or change PWB-H.
		NO	● Change PWB-A.

1161SBT040226A

26) C0F20 : AIDC Sensor UN13 Variation Correction Failure
C0F22 : AIDC Sensor UN13 Grid Voltage Correction Failure
C0F23 : AIDC Sensor UN13 Exposure Correction Failure

Relevant Electrical Parts	
• AIDC Sensor UN13	• Master Board PWB-A


PJ21A-4
PJ21A-9
PJ21A-8
PWB-A
CN43
CN44
CN50
1
15
16
17
24
7
8
9
10
2
3
LED
GND
AIDC
UN13

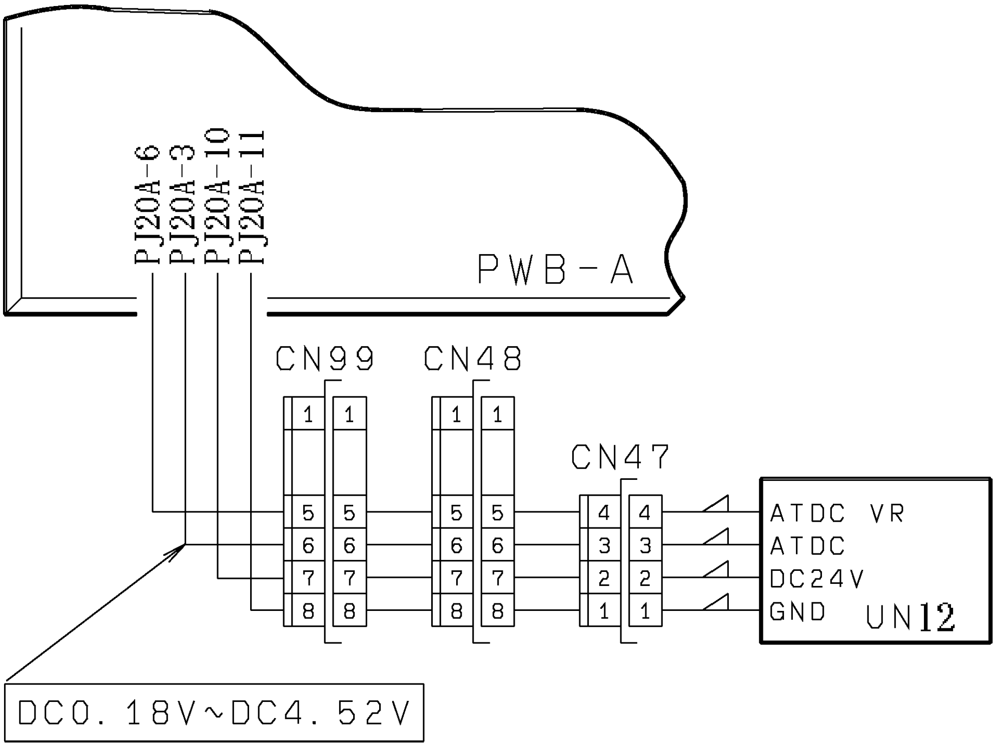
1075C25TAA

Step	Check Item	Result	Action
1	Are PJ21A, CN43 (24P), CN44 (10P) and CN50 (3P) plugged securely into PWB-A?	NO	• Plug them in securely.
2	Is the photo receptor/LED of the AIDC Sensor contaminated?	YES	• Clean the AIDC Sensor.
		NO	• Change UN13. If the failure recurs, change PWB-A.

1161SBT040227A

27) C0F30 : ATDC Sensor UN12 Failure
C0F31 : ATDC Sensor UN12 Failure

Relevant Electrical Parts	
• ATDC Sensor UN12	• Master Board PWB-A


PJ20A-6
PJ20A-3
PJ20A-10
PJ20A-11
PWB-A
CN99
CN48
CN47
1
5
6
7
8
4
3
2
1
ATDC VR
ATDC
DC24V
GND
UN12
DC0.18V~DC4.52V

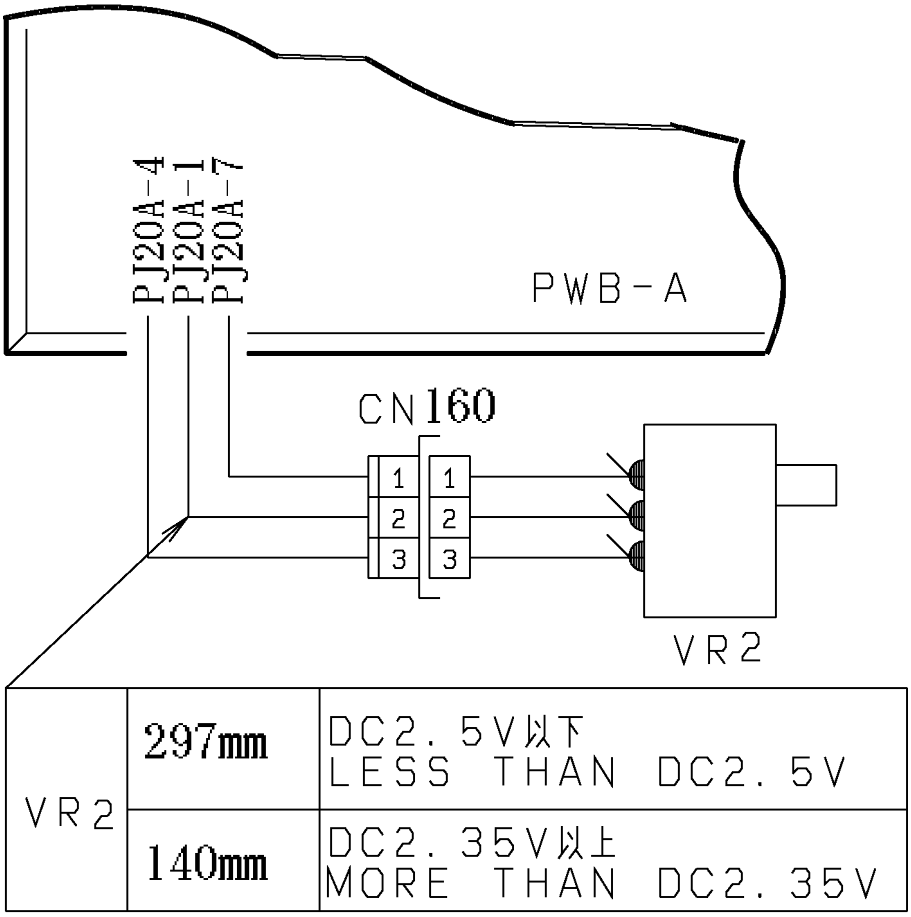
1075C26TAA

Step	Check Item	Result	Action
1	Is the value for “Set” of “ATDC Level” of “Level History” equal to the value given on the Adjust Label?	NO	• Enter the value given on the Adjust Label.
2	Is the voltage across PJ20A-3 on PWB-A and GND in the range DC0.5V to DC4.2V during a copy cycle?	YES	• Change PWB-A.
		NO	• Check that PJ20A and CN99 have been plugged in. • Change UN12.

1161SBT040228A

28) C0F61: Drawer Paper Width Reference Position Failure

Relevant Electrical Parts	
● 2nd Drawer Paper Size Detecting Resistor VR2	● Master Board PWB-A


PJ20A-4
PJ20A-1
PJ20A-7
PWB-A
CN160
1
2
3
1
2
3
VR2
VR2
297mm
DC2.5V以下
LESS THAN DC2.5V
140mm
DC2.35V以上
MORE THAN DC2.35V

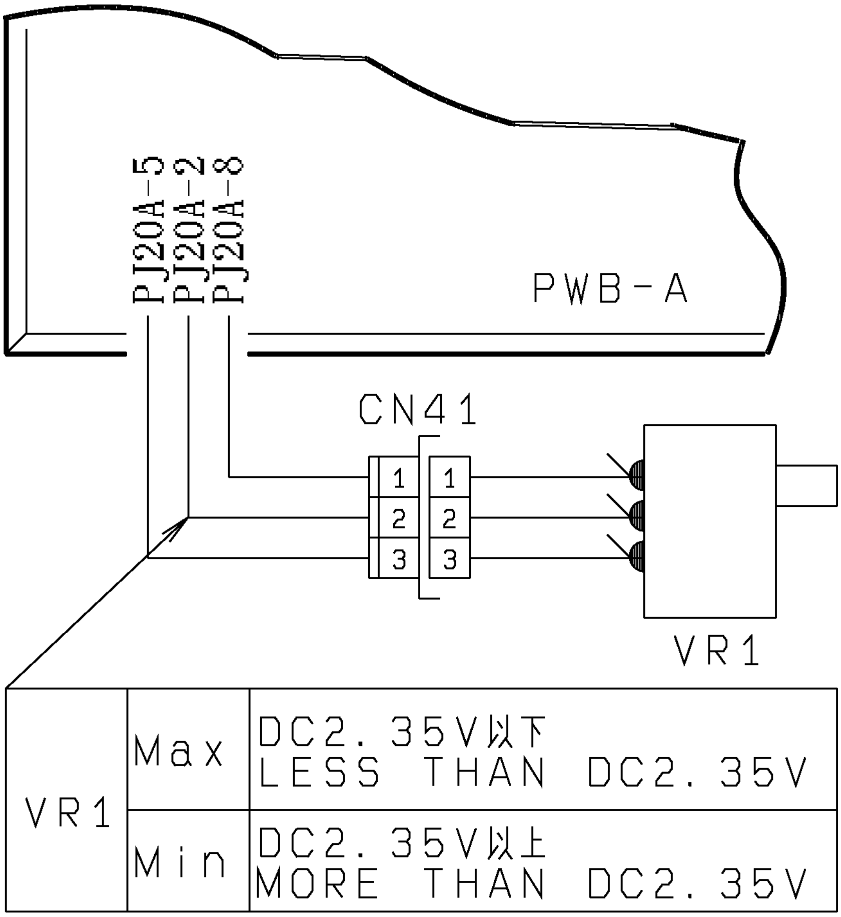
1161C02TAA

Step	Check Item	Result	Action
1	Does the malfunction code appear when Fd-4 of ”Function” is run?	NO	● Check step 4.
2	Is the Edge Guide at the 297-mm-width position?	NO	● Move the Edge Guide to the 297-mm-width position. ● Check the rack gear.
3	Is the voltage across PJ20A-1 on PWB-A and GND DC2.5V or less?	YES	● Change PWB-A.
		NO	● Change the position of VR2. ● Change VR2.
4	Is the Edge Guide at the 140-mm-width position?	NO	● Move the Edge Guide to the 140-mm-width position. ● Check the rack gear.
5	Is the voltage across PJ20A-1 on PWB-A and GND DC2.35V or more?	YES	● Change PWB-A.
		NO	● Change the position of VR2. ● Change VR2.

1161SBT040229A

29) C0F66 : Manually Fed Paper Width Reference Position Failure

Relevant Electrical Parts	
● Manual Feed Size Detecting Resistor VR1	● Master Board PWB-A


PJ20A-5
PJ20A-2
PJ20A-8
PWB-A
CN41
1
2
3
1
2
3
VR1
VR1
Max
DC2.35V以下
LESS THAN DC2.35V
Min
DC2.35V以上
MORE THAN DC2.35V

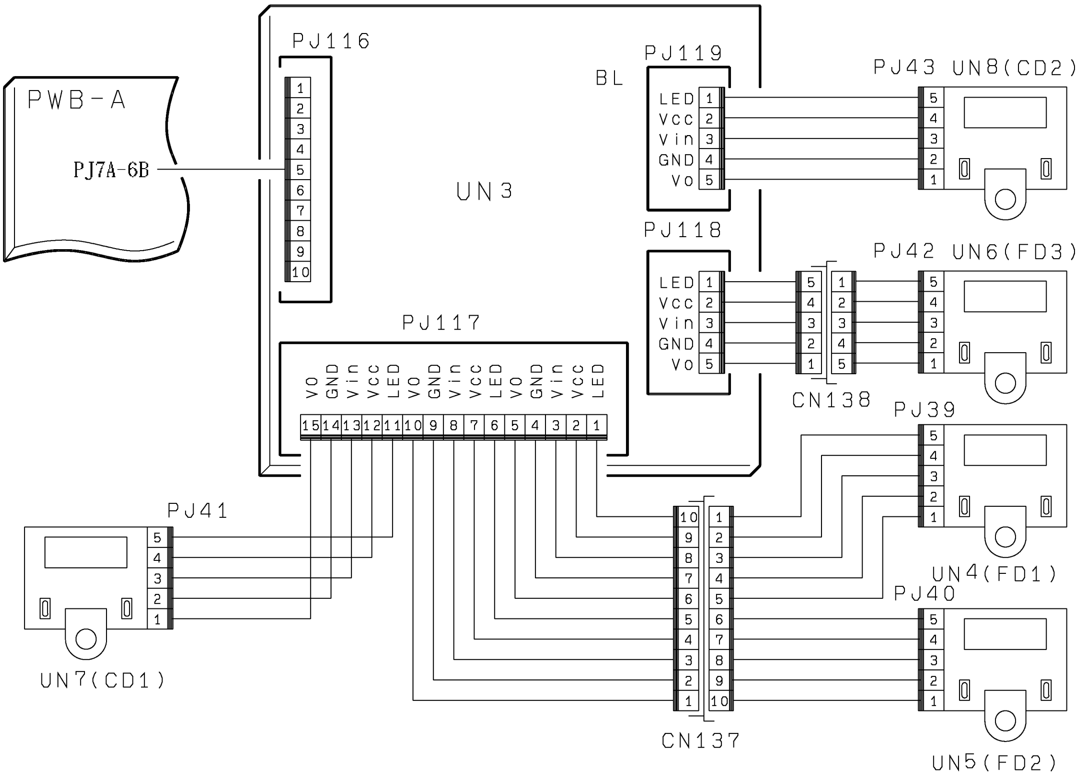
1075C27TAA

Step	Check Item	Result	Action
1	Is this malfunction code displayed when the function mode Fd-0 (Inch Area) or Fd-2 (Metric Area) is executed?	NO	● Go to Step 4.
2	Is the Manual Feed Guide Plate set to the maximum width position?	NO	● Move the Guide Plate to the maximum width position. ● Check the Rack Gear.
3	Is the voltage across PJ20A-2 on PWB-A and GND DC 2.35V or less?	YES	● Change PWB-A.
		NO	● Change the mounting position of VR1. ● Change VR1.
4	Is the Manual Feed Guide Plate in the minimum width position?	NO	● Move the Guide Plate to the minimum width position. ● Check the Rack Gear.
5	Is the voltage across PJ20A-2 on PWB-A and GND DC 2.35V or more?	YES	● Change PWB-A.
		NO	● Change the mounting position of VR1. ● Change VR1.

1161SBT040230A

30) C0F02 : Original Size Detecting Board UN3 Malfunction
C0FE1 to C0FFF: Original Size Detecting Sensor Failure

Relevant Electrical Parts	
● Original Size Detecting Board UN3 ● Original Size Detecting Sensor FD3 UN6 ● Original Size Detecting Sensor FD2 UN5 ● Original Size Detecting Sensor FD1 UN4	● Original Size Detecting Sensor CD1 UN7 ● Original Size Detecting Sensor CD2 UN8 ● Master Board PWB-A


PWB-A
PJ7A-6B
PJ116
1 2 3 4 5 6 7 8 9 10
UN3
PJ119
BL
LED 1
Vcc 2
Vin 3
GND 4
Vo 5
PJ43 UN8(CD2)
PJ118
PJ42 UN6(FD3)
CN138
PJ117
VO GND Vin Vcc LED VO GND Vin Vcc LED VO GND Vin Vcc LED
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
PJ39
UN4(FD1)
PJ40
UN5(FD2)
PJ41
UN7(CD1)
CN137

1075C28TAA

◆C0F02

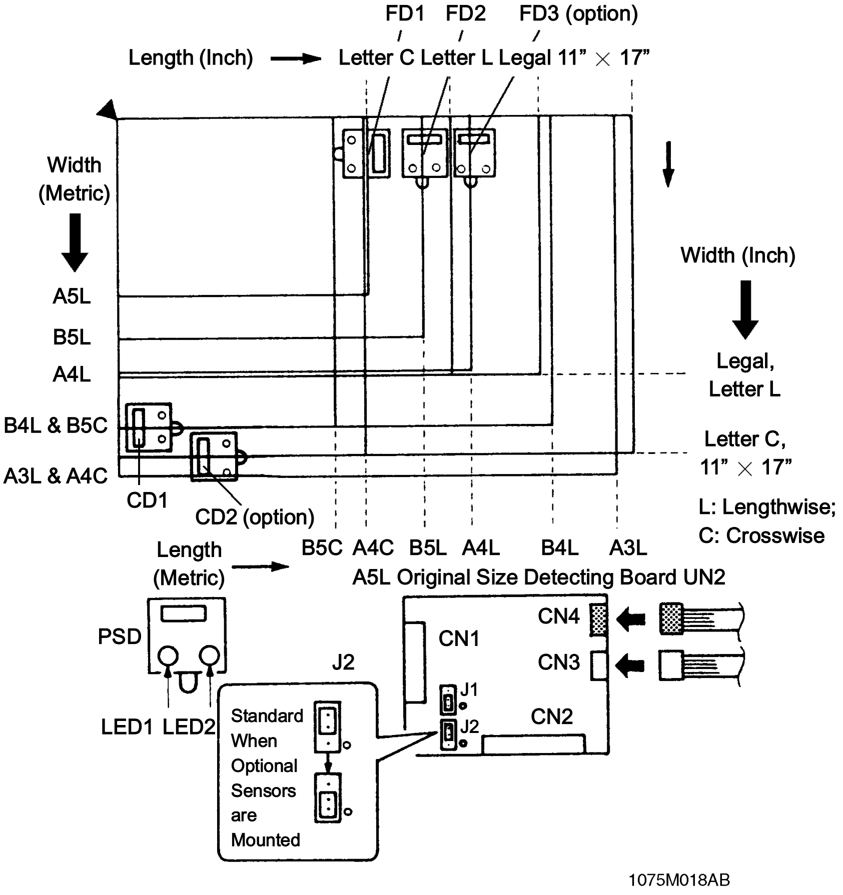
Step	Check Item	Result	Action
1	Is the jumper connector fitted properly across J1 and J2 on UN3?	NO	• Change the position of the jumper connector.
2	Is PJ116 (CN2) plugged securely into UN3 and PJ7A into PWB-A?	NO	• Plug them in securely.
3	Is the voltage across PJ7A-6B on PWB-A and GND changing between DC0V and DC5V?	YES	• Change PWB-A.
		NO	• Change UN3.

◆C0FE1 to C0FFF

Step	Check Item	Result	Action
1	Is the jumper connector fitted properly across J1 and J2 on UN3?	NO	• Change the position of the jumper connector.
2	Is each Original Size Detecting Sensor installed at the correct position?	NO	• Reinstall.
3	Is the malfunction code redisplayed after the corresponding Original Size Detecting Sensor has been changed?	YES	• Change UN3 or PWB-A.

<Sensor Locations>
Standard: CD1 (UN7), FD1 (UN4), FD2 (UN5)
Optional: CD2 (UN8), FD3 (UN6)

NOTE: If the optional sensors are installed, set Jumper Connector J2 on UN3 as illustrated below, connect CN3 and CN4 on UN3, and run the F7 operation.


FD1
FD2
FD3 (option)
Length (Inch)
Letter C
Letter L
Legal
11" × 17"
Width (Metric)
A5L
B5L
A4L
B4L & B5C
A3L & A4C
CD1
CD2 (option)
Width (Inch)
Legal, Letter L
Letter C, 11" × 17"
L: Lengthwise; C: Crosswise
Length (Metric)
B5C
A4C
B5L
A4L
B4L
A3L
A5L
Original Size Detecting Board UN2
PSD
LED1
LED2
J2
Standard
When Optional Sensors are Mounted
CN1
CN4
CN3
J1
J2
CN2
1075M018AB

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31) The Copier Does not Turn ON

Relevant Electrical Parts	
● Power Switch S1 ● Lower Front Door Interlock Switch S2 ● Right Door Interlock Switch S3 ● Main Relay RY1	● DC Power Supply PU1 ● Master Board PWB-A ● Power Supply Board PWB-C ● Noise Filter Board PWB-D

Symptom	Step	Check Item	Result	Action
RY1 does not turn ON.	1	Is there an AC voltage (power supply voltage) across PJ1-1 and -3 on PU1?	NO	● Check the circuit breaker and power supply voltage. If they check okay, change PWB-D.
	2	Is the voltage across PJ-1/2/3 on PU1 and GND DC24V?	NO	● Check the fuse on PU1 and, if it is intact, change PU1.
	3	Is the voltage across PJ7C-3 on PWB-C and GND DC24V when S1 is turned OFF?	NO	● Change PWB-C.
	4	Is the voltage across PJ7C-1/2 on PWB-C and GND DC24V when S1 is turned ON?	NO	● Check S1, S2, and S3.
	5	Does the voltage across PJ4-1/2 on PU1 and GND become DC5V when S1 is turned ON?	YES	● Check RY1.
			NO	● Change PWB-A or PU1.

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32) Miscellaneous

- The message “Stabilizing Image Controller not run.” appears on the Touch Panel.

Condition	Detection Timing
T/C is less than 4% when an F5 operation is run (initial adjustment).	● Memory clear ● “PC Drum” of “Port/Option” counter is cleared. ● AIDC Sensor UN13 develops a malfunction.

<Procedure>

Step	Check Item	Result	Action
1	Is “ATDC Current Level” of “Level History” available from Tech. Rep. mode less than 4%?.	YES	Run the auxiliary toner replenishing cycle and then an F5 operation.
		NO	Run an F5 operation again.

1149SAT0500A

5 IMAGE FAILURE

1149SBT0501A

5-1. Image Failure Troubleshooting

Image failures have many possible causes. For troubleshooting, it is necessary to determine whether a failure is attributable to a basic cause or any other cause.

In this chapter, troubleshooting is divided into “initial checks” and “troubleshooting procedures classified by image failures”. If any image failure has occurred, first make the initial checks, then proceed to the corresponding image failure troubleshooting procedure.

1161SBT0502A

5-2. Initial Checks

1) Place of installation

- Is the source voltage normal? Does the voltage vary greatly?
- Is the copier installed in a hot, humid place or in a place where temperatures vary sharply?
- Is the copier installed in a dusty place?
- Is the copier subjected to direct sunlight?
- Is the copier level?

2) Copy paper

- Is the recommended paper used?
  ➡Load recommended paper and make copies to see if the problem persists.
- Is the paper damp?
  ➡Load new paper and make copies to see if the problem persists.

3) Original

- Does the original used have a reddish background or is it written in light pencil?
  ➡Use the Test Chart to check the image.
- Is the original transparent or are transparencies being used?
  ➡Cover with white paper and make a copy.
- Are the Original Glass and ADF Transport Belt dirty or scratched?
  ➡If dirty, clean with alcohol. If scratched, replace.

4) Adjust data and Level History data

- Are the set values of “Adjust” and “Level History (ATDC Level)” in the Tech. Rep. mode equal to the values given on the Adjust Label inside the Front Door?
  ➡When installing the Developing Unit of another copier containing its own developer, input the ATDC Level value of that particular copier.

5) PM parts (supplies)

- Have the PM parts (supplies), such as the PC Drum, Cleaning Blade, AIDC Sensor and corona wires, reached the end of their cleaning/replacement cycles?

6) Adjustment items (registration, focus, AE level, etc.)

- Among the adjustment items given in DIS/REASSEMBLY, ADJUSTMENT, is there any adjustment that may remedy the image failure?

7) Controller Board Check

- Is a malfunction code displayed when “Controller Board Check” in the Tech. Rep. mode is run?

* When a complaint is lodged against AC mark from a user who uses thick paper, try using the cold-cathode tube type Pre-Image Transfer Erase Lamp which is available as a replacement part.

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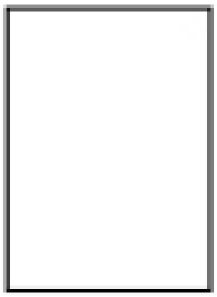
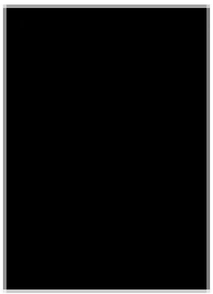
5-3. Troubleshooting Procedures Classified by Image Failure

<Image Failure Samples>

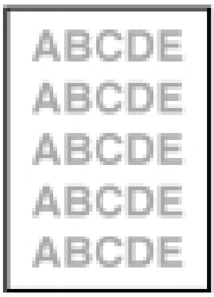
1) Blank copy



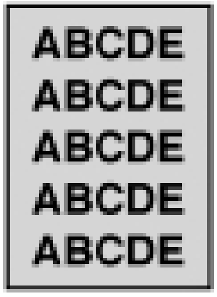
2) Black copy



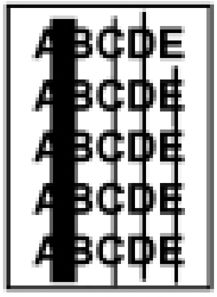
3) Low image density



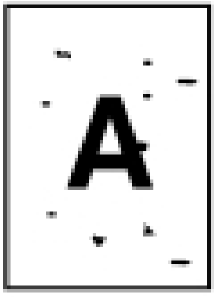
4) Foggy background



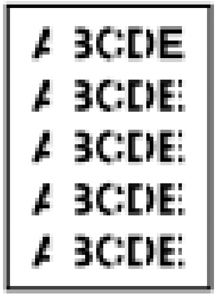
5) Black streaks or bands



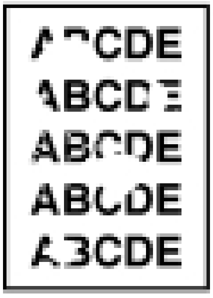
6) Black spots



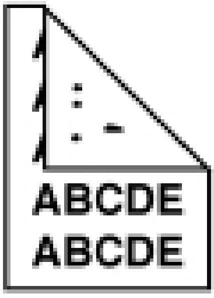
7) Blank streaks or bands



8) Void areas



9) Smear on back



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1) Blank Copy

Cause	Step	Check Item	Result	Action
Charging failure	1	Is the PC Drum Charge Corona installed correctly?	NO	Install correctly.
	2	Are the Comb Electrode wire and grid mesh normal?	NO	Check and change if necessary.
	3	Is the wiring between High Voltage Unit HV1 and the PC Drum Charge Corona normal?	YES	Change HV1.
			NO	Correct the wiring.
Developing Unit out of position	4	Is the PC Unit in position?	NO	Reinstall the Unit.
	5	Are the Ds Rolls in contact with the PC Drum?	NO	Reinstall the Developing Unit.
	6	Is the Developing Unit connector plugged in?	NO	Plug it in.
	7	Is the drive transmission mechanism to the Developing Unit intact?	NO	Check and change any defective part.
Image transfer failure	8	Is the Image Transfer Corona wire normal?	NO	Check and change if necessary.
	9	Is the wiring between High Voltage Unit HV2 and corona wire normal?	YES	Change HV2.
			NO	Correct wiring.
Paper guide shorting	10	Is the paper guide shorted to the frame?	YES	Connect the paper guide through the resistor to the frame.

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2) Black copy

Cause	Step	Check Item	Result	Action
PC Drum grounding failure	1	Is the PC Drum properly grounded?	NO	Clean or change the PC Drum Ground Plate.
Developing bias failure	2	Is the developing bias contact normal?	NO	Clean or replace the developing bias contact.
	3	Is the developing bias harness intact?	YES	Change the High Voltage Unit for drum charging.
			NO	Change the harness.
Light path failure	4	Has condensation formed on the mirrors, lenses, or PC Drum?	YES	Clean the mirrors and lenses, and run the Drum Dehum. operation.
	5	Are the mirrors installed properly?	NO	Reinstall the mirrors.
Exposure Lamp's failure to turn ON	6	Does the Exposure Lamp light up?	NO	Take the action for malfunction code C0400.

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3) Low Image Density

Cause	Step	Check Item	Result	Action
PC Drum life	1	Does the PC Drum have enough service life?	NO	Change the PC Drum.
	2	Do the fan motors turn properly? (Ozone deterioration, temperature rise)	NO	Troubleshoot the fan motors.
PC Drum grounding failure	3	Is the PC Drum grounded properly?	NO	Clean or change the PC Drum Ground Plate.
Drum charge failure	4	Are the Comb Electrode and grid mesh normal?	NO	Check and change if necessary.
	5	Is the wiring between High Voltage Unit HV1 and the PC Drum Charge Corona normal?	YES	Change HV1.
			NO	Correct the wiring.
Image transfer failure	6	Is the Image Transfer Corona dirty?	YES	Clean the Image Transfer Corona or change the wire.
	7	Is the copy paper damp?	YES	Change the copy paper and instruct the user in how to store paper and to keep the copier plugged in during the night.
Developing failure	8	Are the Ds Rolls in contact with the PC Drum?	NO	Reinstall the Developing Unit.
	9	Is the developing bias contact normal?	NO	Clean or Change the developing bias contact.

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4) Foggy background

Cause	Step	Check Item	Result	Action
Cleaning failure	1	Is the Cleaning Blade dirty with foreign matter, paper dust, etc. or is it scratched?	YES	Change the Cleaning Blade.
Optical failure	2	Are the mirrors and lens dirty?	YES	Clean the mirrors and lens.
PC Drum failure	3	Is the PC Drum dirty with foreign matter, etc.?	YES	Clean or replace the PC Drum. Change the Cleaning Blade if necessary.
	4	Is the PC Drum properly grounded?	NO	Clean or change the PC Drum Ground Plate.
Developing failure	5	Is the Sleeve Roller abnormally dirty?	YES	Clean the Sleeve Roller. Check the Developer Scattering Prevention Seal to see if it is deformed or dirty.
	6	Is the developing bias contact normal?	NO	Clean or change the developing bias contact.
Main Erase Lamp failure	7	Does the Main Erase Lamp light up properly?	NO	Replace the Main Erase Lamp.
	8	Is the Main Erase Lamp dirty?	YES	Clean the Main Erase Lamp.
AIDC Sensor failure	9	Is the AIDC Sensor clean or installed properly?	NO	Clean or reinstall the AIDC Sensor and execute F5.
	10	Is the AIDC halftone pattern dirty?	YES	Using care not to scratch, wipe the pattern with a dry soft cloth and run F5.

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5) Black Streaks or Bands

Cause	Step	Check Item	Result	Action
Uneven charging	1	Are the Comb Electrode and grid mesh dirty?	YES	Clean or replace the PC Drum Charge Corona. Check the toner suction mechanism for operation.
Cleaning failure	2	Is the Cleaning Blade dirty with foreign matter, paper dust, etc., or is it scratched?	YES	Change the Cleaning Blade.
	3	Does the Cleaning Blade make a correct lateral motion?	NO	Check the Cleaning Blade for operation.
PC Drum failure	4	Is the PC Drum surface dirty or scratched?	YES	Change the PC Drum. If necessary, change the Cleaning Blade.
PC Drum Paper Separator Fingers	5	Are the PC Drum Paper Separator Fingers dirty, deformed or faulty in operation?	YES	Clean or replace the PC Drum Paper Separator Fingers.
Fusing failure	6	Is the Upper Fusing Roller dirty or scratched?	YES	Clean or replace the Upper Fusing Roller.
	7	Are the Upper Paper Separator Fingers dirty or deformed?	YES	Clean or replace the Upper Paper Separator Fingers.
Optical failure	8	Are the mirrors and lens dirty with foreign matter?	YES	Clean the mirrors and lens.

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6) Black Spots

Cause	Step	Check Item	Result	Action
PC Drum failure	1	Is the PC Drum surface scratched or dirty with foreign matter?	YES	Clean or change the PC Drum. Change the Cleaning Blade if necessary.
Fusing failure	2	Is the Upper Fusing Roller dirty or scratched?	YES	Check the Fusing Thermistors. Clean or change the Upper Fusing Roller.
Developing failure	3	Is the amount of toner on the Sleeve Roller proper?	YES	Go to step 5.
	4	Is the toner-to-carrier ratio relatively high?	YES	Change the toner-to-carrier ratio.
	5	Is the Developer Scattering Prevention Seal deformed or dirty?	YES	Clean or change the Developer Scattering Prevention Seal.
Dirty PC Drum Paper Separator Fingers	6	Are the PC Drum Paper Separator Fingers dirty or deformed?	YES	Clean or change the PC Drum Paper Separator Fingers.

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7) Blank Streaks or Bands

Cause	Step	Check Item	Result	Action
Plugged Db	1	Is the Db plugged with foreign matter, caked toner, etc.?	YES	Remove foreign matter. If the problem persists, change the developer.
Drum charge failure	2	Are the Comb Electrode and grid mesh dirty?	YES	Clean or change the PC Drum Charge Corona.
	3	Is the Drum Charge Corona Wire Cleaner at the home position?	NO	Check the corona wire cleaning mechanism.
Image transfer failure	4	Is the Image Transfer Corona wire dirty?	YES	Clean or change the Image Transfer Corona.
	5	Is the Corona Wire Cleaner at the home position?	NO	Check the corona wire cleaning mechanism.
Defective PC Drum Paper Separator Fingers	6	Are the PC Drum Paper Separator Fingers dirty or deformed?	YES	Clean or replace the PC Drum Paper Separator Fingers.
Image Erase Lamp lit at abnormal timing	7	Does the Image Erase Lamp light up at abnormal timing?	YES	Check the Image Erase Lamp.
Fusing failure	8	Is the Upper Fusing Roller dirty or scratched?	YES	Clean or change the Upper Fusing Roller.
	9	Are the Upper Paper Separator Fingers dirty or scratched?	YES	Clean or change the Upper Paper Separator Fingers.

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8) Void Areas

Cause	Step	Check Item	Result	Action
Image transfer failure	1	Is the Image Transfer Corona installed properly?	NO	Reinstall.
	2	Is the Image Transfer Corona wire dirty?	YES	Clean or change the Image Transfer Corona wire.
Damp copy paper	3	Is the image improved by loading new paper?	YES	Change the copy paper and instruct the user in how to store paper and to keep the copier plugged in during the night.
Small amount of toner supplied	4	Is toner uniformly attracted onto the Sleeve Roller?	NO	Check the Db value and amount of developer, and check the Bucket Roller for operation.
PC Drum condensation	5	Is the image improved by running Drum Dehum.?	YES	Run Drum Dehum. and instruct the user to take further action.
Paper guide shorting	6	Is the paper guide shorted to the frame?	YES	Connect the paper guide through the resistor to the frame.
Fusing failure	7	Is the Lower Fusing Roller scratched or deformed?	YES	Replace the Lower Fusing Roller.

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9) Smear on Back

Cause	Step	Check Item	Result	Action
Dirty Developing Unit	1	Is the bottom part of the Developing Unit dirty?	YES	Clean and check the Developer Scattering Prevention Seal.
Dirty Image Transfer Corona	2	Is the Image Transfer Corona dirty?	YES	Clean the corona and check the Developing Unit.
	3	Is the Pre-Image Transfer Guide Plate dirty?	YES	Clean the guide plate and check the Developing Unit.
Dirty Suction Unit	4	Are the Suction Belts dirty?	YES	Clean the Suction Belts and check the Developing Unit.
Dirty Fusing Unit	5	Is the Fusing Unit Entrance Guide Plate dirty?	YES	Clean the guide plate and check the Developing Unit.
	6	Are the Upper and Lower Fusing Rollers dirty?	YES	Clean or change the Upper and Lower Fusing Rollers, and check the Fusing Roller cleaning mechanism.

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PREFACE 前書き

1. The part numbers listed in Parts Manual are those which were assigned to theparts making up the machine at the time machine was originally introducedonto the market.

2. Parts whose numbers are preceded by an asterisk in the Index Column on theList Page are parts to be used in only certain market areas. Therefore, please check the number in the Area cloumn on the List Page and then compare it with the numbers given in the Area Chart on page II to find out which part number is applicable to your own ares.
   NOTE: Parts for only certain Market Areas: The part numbers for these partsvary according to market area. In orther cases, these parts are used inonly restricted areas.

3. The Index Number on the List Page is composed of two numbers and two letters. Generally, only A is used as the first letter of the two letters. However, sometimesB, C, D, ets. are used when one part in the illustration, such as an electrical parts or a part which varies according to market ares, has two or more part numbers. The second of the two letters represents themodification history of that part.

4. The Ares Number is listed in the Ares Column for only those parts used in certainmarket areas. This Area Number represents the ares listed opposite to It in the Chrat given on Page II. Parts having no Area Number listed in the Area Column can be used in all market areas.

5. In the exploded views in this parts manual parts (Screws & Washes, etc...) which are indicated with a "four-digit" numbers are listed in numerical order in the section "SCREWS AND WASHERS". Please check these "four-digit"numbers with the part numbers ("ten-digit" number) which should be used for ordering the part.

6. All parts numbers consist of "ten-digit" wtich should all be quoted when ordering a part. The price of parts can be obtained by referring to the "Parts Price List" which is separately issued.

7. All infomation contained in this parts manual is subject to change.

1．パーツマニュアルには、販売当初の機械を構成している部品が記載されています。

2．リスト部の表示番号(INDEX)に※印がある部品は仕向部品ですので、地域No.(AREA No.)をIIページの地域No.対比表で照合して、国内の部品番号(PART No.)を使用してください。
注）仕向部品………地域により部品番号が異なる、または、一部
地域にだけ使用されている部品。

3．リスト部の表示番号は、部品図の番号をあらわす2桁の数字と2桁の補助記号より構成されています。
補助記号の1桁目は、一般にはAだけですが、仕向部品、電気部品のように1つの部品図で複数の部品番号をあらわしている場合にA．B．C．…となっています。補助記号の2桁目は部品の変更経歴をあらわしています。

4．リスト部の地域No.は仕向部品にだけ記載されており、IIページでその部品の使用されている地域をあらわしています。地域No.のないものは全地域使用部品です。

5．ネジ・ワッシャー類は、数字4桁の表示番号を使用しています。ネジ・ワッシャー部で照合の上、10桁の部品番号を使用してください。

6．部品番号は10桁で構成されています。注文は必ず10桁の部品番号を使用してください。

7．このパーツマニュアルの内容は予告なく変更されることがあります。

AREA CHART 地域No.対比表

AREA No. 地域No.	AREA 該当地域	(JAPAN 国内)	AREA No. 地域No.	AREA 該当地域	(JAPAN 国内)
0400	METRIC	○	2550	127V	
0506	JAPAN/TAIWAN	○	2612	220/240V	
0511	100/115/120/127V	○	2626	200/220/240V (EXCEPT KOREA)	
0600	100V	○	2704	USA/CANADA	
0702	EXCEPT USA/CANADA	○	2706	EUROPE	
0710	EXCEPT USA/CANADA/EUROPE	○	2713	EXCEPT JAPAN/USA/CANADA/EUROPE	
0745	EXCEPT EUROPE/KOREA	○	2715	EXCEPT JAPAN/EUROPE	
0749	INCH/JAPAN/TAIWAN/KOREA/SAUDI ARABIA	○	2720	USA/CANADA/EUROPE	
1000	JAPAN	○	2758	KOREA	
2000	EXCEPT JAPAN		2778	EXCEPT JAPAN/KOREA/EUROPE	
2300	INCH				
2303	INCH (EXCEPT USA/CANADA)				
2401	METRIC (EXCEPT JAPAN/TAIWAN)				
2407	METRIC (EXCEPT JAPAN/KOREA)				
2424	METRIC (EXCEPT JAPAN/TAIWAN/KOREA)				
2505	115/120/127V				

We recommend that you cross out from your Parts Manuals those parts numbers which do not apply to your area so that no error is made when ordering parts.

注文時の部品番号まちがいを防ぐために、マニュアル内の国内以外の部品番号をあらかじめ削除しておくことをおすすめします。

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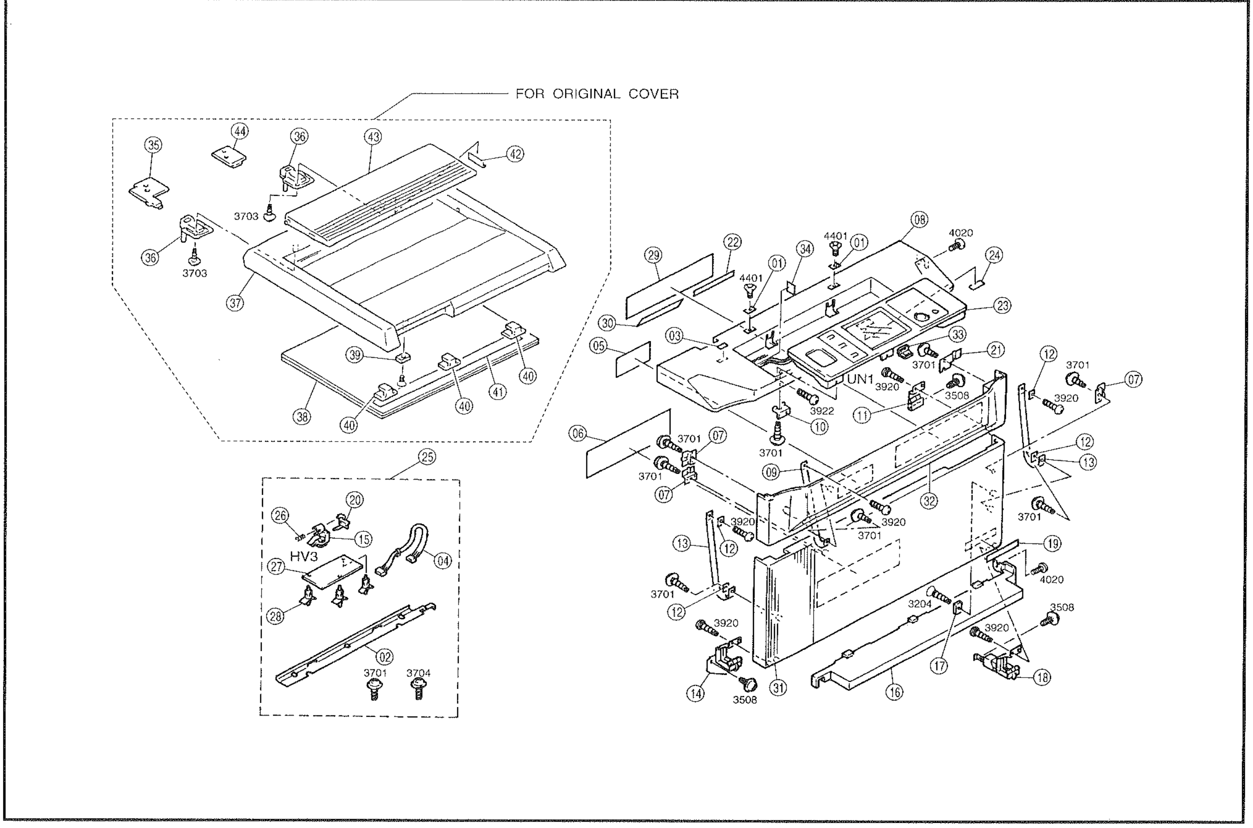
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*02AA	1075-7801-01	ANTISPILL PLATE OPTION ﾄﾅｰﾋｻﾝﾎﾞｳｼﾊﾞﾝ ｵﾌﾟｼｮﾝ	1	0710	
*03AA	1161-7331-01	LABEL 6001 ﾗﾍﾞﾙ	1	2704	
*04AA	1075-6867-02	HARNESS OPTION ﾊｰﾈｽ ｵﾌﾟｼｮﾝ	1	0710	
05AA	1075-7318-01	LABEL ADJUST ﾗﾍﾞﾙ ｱｼﾞｬｽﾄ	1		
06AA	1161-7301-01	LABEL JAM REMOVAL ﾗﾍﾞﾙ ｶﾐﾂﾞﾏﾘﾉｼｮﾘ	1		
07AA	1033-3102-01	PLATE ﾌﾟﾚｰﾄ	3		
08AA	1161-1055-01	COVER ｶﾊﾞｰ	1		
09AA	1075-1088-01	BAND ﾊﾞﾝﾄﾞ	1		
10AA	1075-1085-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
11AA	1075-1016-01	HINGE ﾋﾝｼﾞ	1		
12AA	1053-3103-01	PLATE ﾌﾟﾚｰﾄ	4		
13AA	1043-5102-02	BAND ﾊﾞﾝﾄﾞ	2		
14AA	1161-1013-01	HINGE ﾋﾝｼﾞ	1		
*15AA	1075-7803-01	HOLDER OPTION ﾎﾙﾀﾞｰ ｵﾌﾟｼｮﾝ	1	0710	
16AA	1075-1060-01	COVER ｶﾊﾞｰ	1		
17AA	9326-2320-21	MAGNET ﾏｸﾞﾈｯﾄ	1		
18AA	1161-1014-01	HINGE ﾋﾝｼﾞ	1		
19AA	1139-7347-01	LABEL CS PRO ﾗﾍﾞﾙ CS PRO	1		
*20AA	1075-7802-01	TERMINAL OPTION ﾀｰﾐﾅﾙ ｵﾌﾟｼｮﾝ	1	0710	
21AA	1075-1026-04	PLATE ﾌﾟﾚｰﾄ	1		
*22AA	1161-7333-01	LABEL ﾗﾍﾞﾙﾄﾅｰｼｼﾞ	1	1000	
*22BA	1161-7334-01	LABEL TONER ﾗﾍﾞﾙ	1	2715	
*22CA	1161-7339-01	LABEL TONER ﾗﾍﾞﾙ	1	2706	
*23AA	1149-0116-02	CONTROL PANEL ｿｳｻﾊﾟﾈﾙ (UN1)	1	1000	
*23BA	1149-0117-02	CONTROL PANEL ｿｳｻﾊﾟﾈﾙ (UN1)	1	2778	
*23CA	1149-0118-02	CONTROL PANEL ｿｳｻﾊﾟﾈﾙ (UN1)	1	2706	
*23DA	1156-0119-02	CONTROL PANEL ｿｳｻﾊﾟﾈﾙ (UN1)	1	2758	
24AA	1129-7303-01	LABEL HIGH VOLTAGE ﾗﾍﾞﾙ ｺｳｱﾂﾁｭｳｲ	1		
*25AA	1075-0901-01	CLEANING BIAS KIT OPTION ｼｰﾙﾊﾞｲｱｽｷｯﾄ ｵﾌﾟｼｮﾝ	1	0710	
*26AA	1400-1124-08	PRESSURE SPRING OPTION ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ ｵﾌﾟｼｮﾝ	1	0710	
*27AA	9325-4520-41	PWB-INVERTER OPTION ｲﾝﾊﾞｰﾀｰﾕﾆｯﾄ ｵﾌﾟｼｮﾝ (HV3)	1	0710	
*28AA	9384-1900-57	PWB SUPPORT 9.53H OPTION ｷﾊﾞﾝｻﾎﾟｰﾄ ｵﾌﾟｼｮﾝ	3	0710	
29AA	1161-7329-01	LABEL TONERBOTTLE ﾗﾍﾞﾙﾄﾅｰﾎﾞﾄﾙ	1		
*30AA	1139-7328-01	LABEL AVOID ﾗﾍﾞﾙ	1	2704	
*31AA	1075-1059-01	FRONT DOOR-LWR ﾏｴｼﾀﾄﾞｱｰ	1	2704	
*31BA	1161-1051-01	FRONT DOOR-LWR ﾏｴｼﾀﾄﾞｱｰ	1	0702	
32AA	1075-1063-02	FRONT DOOR-UPR ﾏｴｳｴﾄﾞｱｰ	1		
*33AA	9326-1710-11	FERRITE CORE ﾌｪﾗｲﾄｺｱ	1	2407	
34AA	1161-1056-01	SPACER ｽﾍﾟｰｻｰ	1		
35AA	1075-1089-01	COVER ｶﾊﾞｰ	1		
36AA	1139-1705-01	HINGE ﾋﾝｼﾞ	2		
37AA	1139-1701-04	ORIGINAL COVER ｹﾞﾝｺｳｶﾊﾞｰ	1		
38AA	1139-1704-02	PAD ﾊﾟｯﾄﾞ	1		
39AA	9326-2820-11	MAGNET ﾏｸﾞﾈｯﾄ	1		
40AA	1139-1703-02	SLIDER ｽﾗｲﾀﾞｰ	3		
41AA	1139-1706-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
42AA	1139-1728-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
43AA	1139-1702-02	ORIGINAL HOLDER ｹﾞﾝｺｳﾎﾙﾀﾞｰ	1		
44AA	1139-1035-01	COVER ｶﾊﾞｰ	1		

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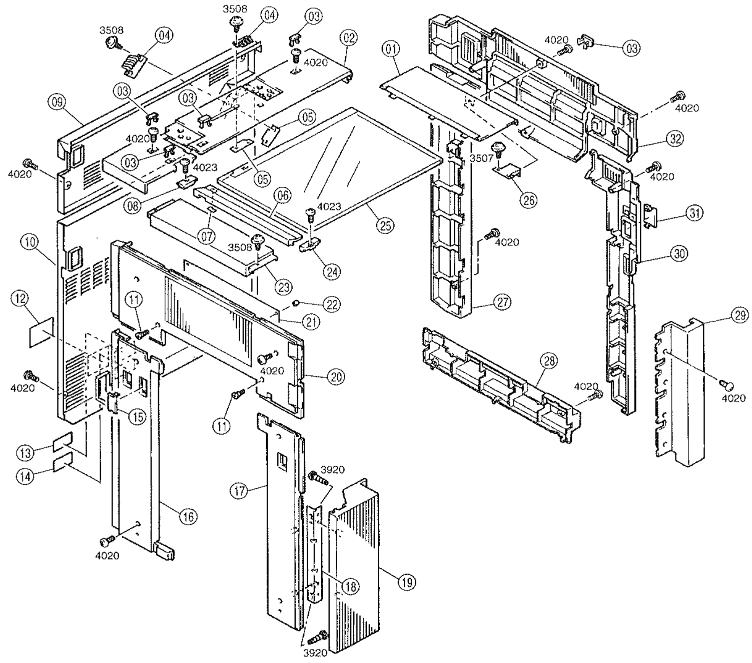

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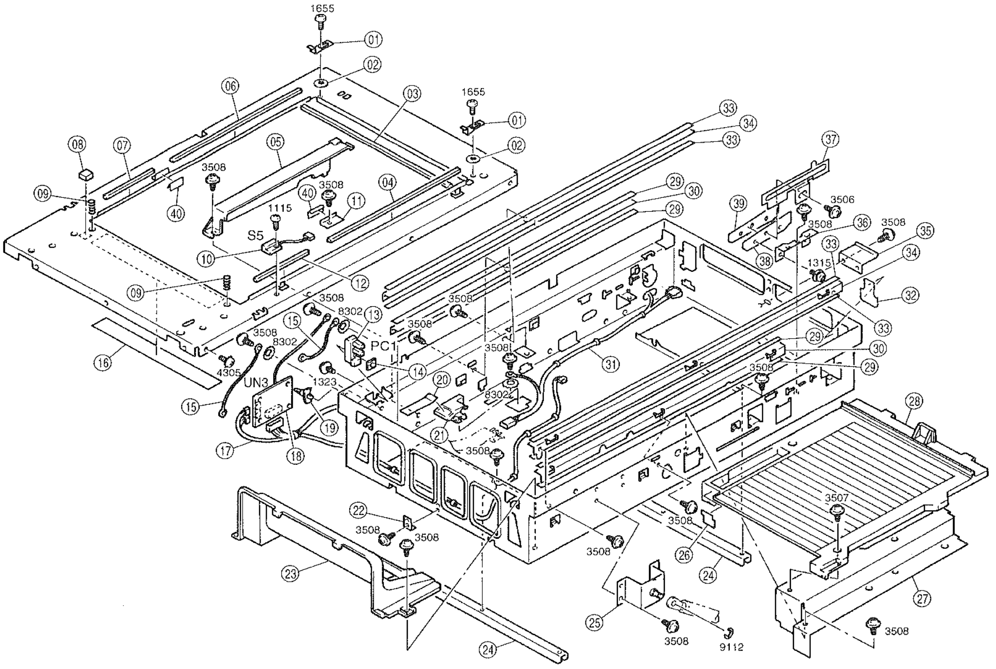
02AA	1075-1056-03	TOP COVER-RR ｳｴｳｼﾛｶﾊﾞｰ	1								
03AA	1139-1044-01	COVER ｶﾊﾞｰ	5								
04AA	1075-1007-02	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2								
05AA	1075-1008-02	PLATE NUT ﾌﾟﾚｰﾄﾅｯﾄ	2								
*06AA	1151-1901-01	WIDTH SCALE ﾊﾊﾞｽｹｰﾙ	1	0506							
*06BA	1151-1902-01	WIDTH SCALE ﾊﾊﾞｽｹｰﾙ	1	2300							
*06CA	1151-1903-01	WIDTH SCALE ﾊﾊﾞｽｹｰﾙ	1	2401							
07AA	1139-1915-02	SPONGE ｽﾎﾟﾝｼﾞ	1								
08AA	1139-1906-01	HOLDER ﾎﾙﾀﾞｰ	1								
09AA	1075-1003-03	REAR COVER-UPR ｳｼﾛｳｴｶﾊﾞｰ	1								
10AA	1161-1004-01	REAR COVER-LWR ｳｼﾛｼﾀｶﾊﾞｰ	1								
11AA	1075-1091-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2								
12AA	1031-7223-02	LABEL CAUTION ﾗﾍﾞﾙ ｹｲｺｸﾁｭｳｲ	1								
*13AA	1274-7305-01	LABEL CAUTION ﾗﾍﾞﾙ	1	2000							
*14AA	1076-7406-01	LABEL FUSE BREAKER ﾗﾍﾞﾙ	1	2706							
15AA	1136-1030-01	COVER ｶﾊﾞｰ	1								
16AA	1075-1069-02	LEFT COVER-RR ﾋﾀﾞﾘｳｼﾛｶﾊﾞｰ	1								
17AA	1075-1068-02	LEFT COVER-FNT ﾋﾀﾞﾘﾏｴｶﾊﾞｰ	1								
18AA	1075-1027-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
19AA	1075-1077-02	FRONT COVER-LET ﾏｴﾋﾀﾞﾘｶﾊﾞｰ	1								
20AA	1075-1053-03	LEFT COVER-UPR ﾋﾀﾞﾘｳｴｶﾊﾞｰ	1								
21AA	1075-1378-03	FILTER ﾌｨﾙﾀｰ	1								
22AA	1200-2105-07	COLLAR ｶﾗｰ	4								
23AA	1075-1062-01	TOP COVER-LFT ｳｴﾋﾀﾞﾘｶﾊﾞｰ	1								
24AA	1139-1905-01	HOLDER ﾎﾙﾀﾞｰ	1								
*25AA	1151-0173-01	ORIGINAL GLASS ｹﾞﾝｺｳｶﾞﾗｽ	1	0506							
*25BA	1151-0174-01	ORIGINAL GLASS ｹﾞﾝｺｳｶﾞﾗｽ	1	2300							
*25CA	1151-0175-01	ORIGINAL GLASS ｹﾞﾝｺｳｶﾞﾗｽ	1	2401							
26AA	1075-1001-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
27AA	1075-1074-02	RIGHT COVER-RR ﾐｷﾞｳｼﾛｶﾊﾞｰ	1								
28AA	1075-1075-02	RIGHT COVER-LWR ﾐｷﾞｼﾀｶﾊﾞｰ	1								
29AA	1075-1076-03	FRONT COVER-RT ﾏｴﾐｷﾞｶﾊﾞｰ	1								
30AA	1161-1073-01	COVER ｶﾊﾞｰ	1								
31AA	1139-1015-01	COVER ｶﾊﾞｰ	1								
32AA	1161-1052-01	RIGHT COVER-UPR ﾐｷﾞｳｴｶﾊﾞｰ	1								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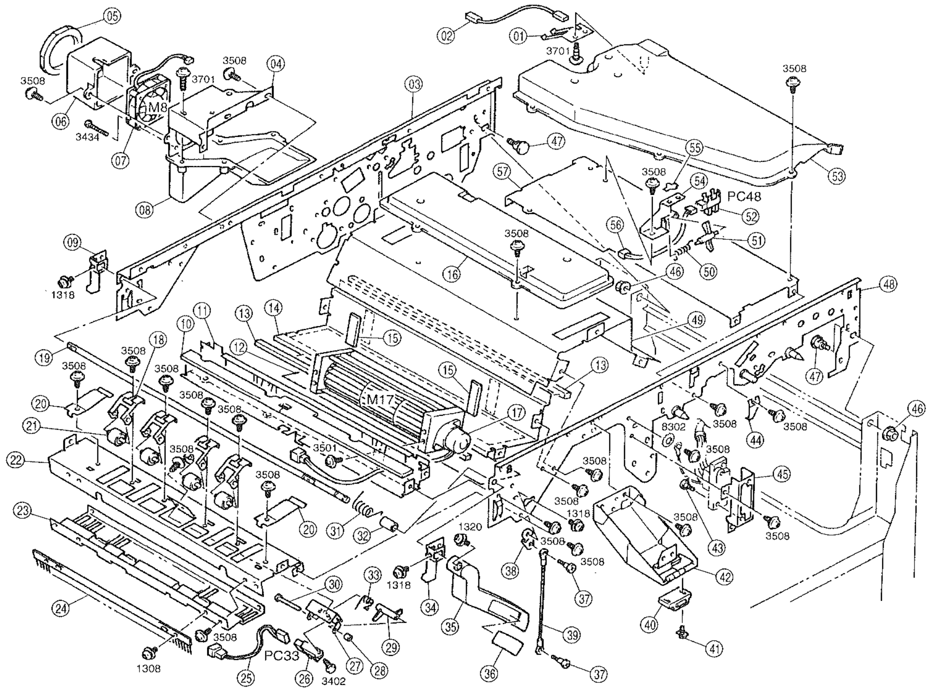
03AA	1075-1353-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
04AA	1075-1356-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
05AA	1075-1722-01	GUIDE ｶﾞｲﾄﾞ	1		
06AA	1075-1354-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
07AA	1075-1357-02	SPONGE ｽﾎﾟﾝｼﾞ	1		
08AA	1139-1909-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
09AA	1139-1904-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	2		
10AA	9334-2610-11	REED SWITCH SIZE RESET ﾘｰﾄﾞｽｲｯﾁ ｻｲｽﾞﾘｾｯﾄ (S5)	1		
11AA	1075-1310-01	PLATE ﾌﾟﾚｰﾄ	1		
12AA	1075-1355-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
13AA	9335-1310-51	PHOTO INTERRUPTER SCANNER REF ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｽｷｬﾅｰﾎｰﾑ (PC1)	1		
14AA	1033-3818-01	PLATE NUT ﾌﾟﾚｰﾄﾅｯﾄ	1		
15AA	1161-6847-01	HARNESS ﾊｰﾈｽ	2		
16AA	1075-1352-02	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
17AA	1075-6878-03	HARNESS ﾊｰﾈｽ	1		
18AA	1136-0122-03	PW BOARD SIZE DETECT ﾌﾟﾘﾝﾄｷﾊﾞﾝ ｹﾞﾝｺｳ (UN3)	1		
19AA	9384-1900-56	PWB SUPPORT 6.35H ｷﾊﾞﾝｻﾎﾟｰﾄ	4		
20AA	1075-1478-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
21AA	1075-1456-02	HOLDER ﾎﾙﾀﾞｰ	1		
22AA	1075-2011-01	PLATE ﾌﾟﾚｰﾄ	1		
23AA	1075-1379-01	DUCT ﾀﾞｸﾄ	1		
24AA	1075-1331-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	2		
25AA	1075-2042-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
26AA	1075-1959-02	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
27AA	1075-1907-01	LIGHT SHIELD PLATE ｼｬｺｳﾊﾞﾝ	1		
28AA	1075-1952-07	COVER ｶﾊﾞｰ	1		
29AA	1075-1371-01	SLIDE GUIDE ｽﾗｲﾄﾞｶﾞｲﾄﾞ	4		
30AA	1075-1304-01	GUIDE RAIL ｶﾞｲﾄﾞﾚｰﾙ	2		
31AA	1075-6812-03	HARNESS ﾊｰﾈｽ	1		
32AA	1161-1340-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
33AA	1075-1370-01	SLIDE GUIDE ｽﾗｲﾄﾞｶﾞｲﾄﾞ	4		
34AA	1075-1303-01	GUIDE RAIL ｶﾞｲﾄﾞﾚｰﾙ	2		
35AA	1075-2414-01	PLATE ﾌﾟﾚｰﾄ	1		
36AA	1075-1720-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
37AA	1075-1719-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
38AA	1054-3864-01	ADJUSTING PLATE ﾁｮｳｾｲﾊﾞﾝ	1		
39AA	1075-1953-01	SEAL ｼｰﾙ	1		
40AA	1161-1341-01	POLYESTER FILM ﾎﾞﾘｴｽﾃﾙﾌｨﾙﾑ	2		

4 UPPER FRAMES I 上フレーム部 I



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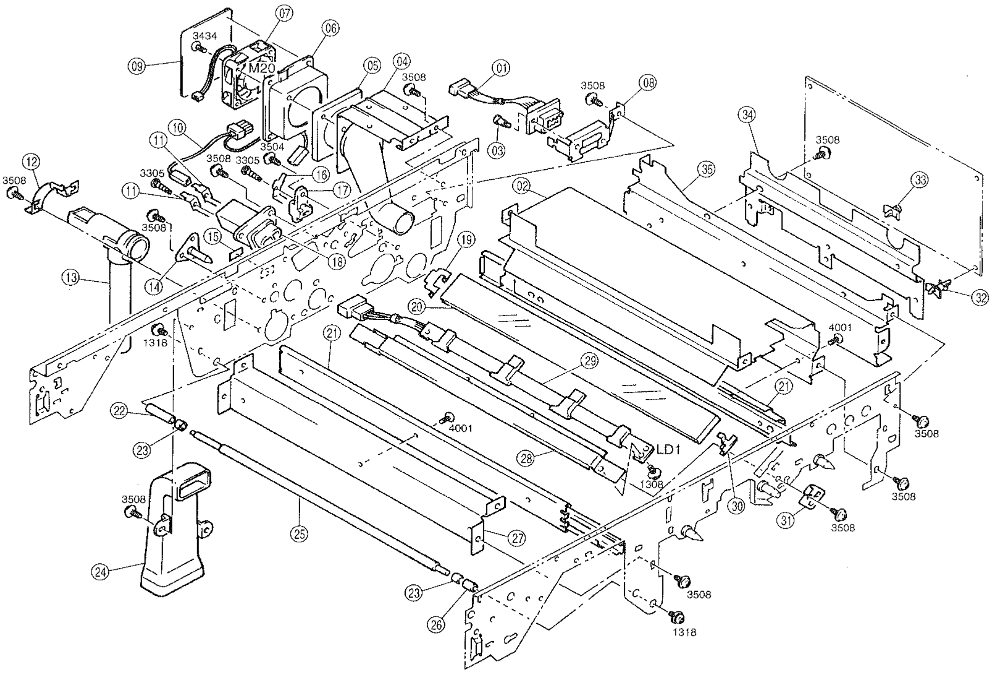
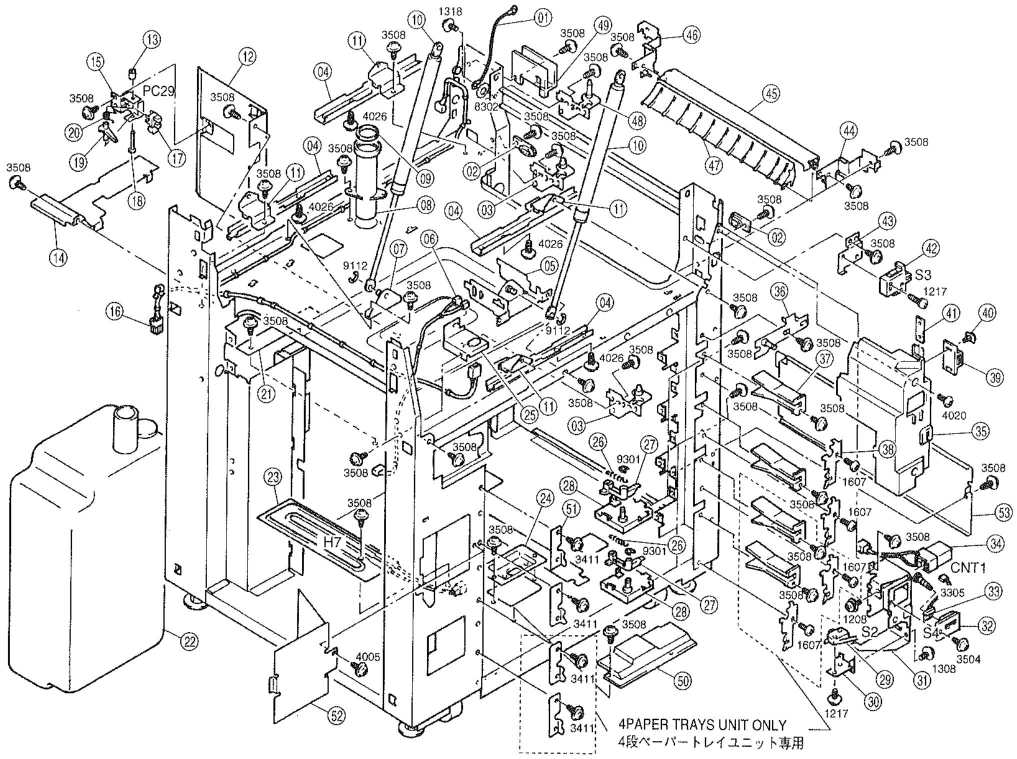
02AA	1161-6836-02	HARNESS ﾊｰﾈｽ	1		
03AA	1161-2002-02	FRAME ﾌﾚｰﾑ	1		
04AA	1075-2114-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
05AA	1075-2166-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
06AA	1075-2156-02	DUCT ﾀﾞｸﾄ	1		
07AA	9313-1410-31	FAN MOTOR ﾌｧﾝﾓｰﾀｰ FUSING VENT ﾃｲﾁｬｸﾊｲｷ (M8)	1		
08AA	1075-2155-01	DUCT ﾀﾞｸﾄ	1		
09AA	1051-3801-01	LOCK LEVER ﾛｯｸﾚﾊﾞｰ	1		
10AA	1075-2065-02	SPONGE ｽﾎﾟﾝｼﾞ	1		
11AA	1075-2008-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
12AA	1075-1392-01	SHEET ｼｰﾄ	1		
13AA	1075-1380-01	SPONGE ｽﾎﾟﾝｼﾞ	2		
14AA	1075-1335-02	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
15AA	1075-1381-01	SPONGE ｽﾎﾟﾝｼﾞ	2		
16AA	1075-2157-02	DUCT ﾀﾞｸﾄ	1		
17AA	9313-1310-52	FAN MOTOR ﾌｧﾝﾓｰﾀｰ COOLING FAN ﾚｲｷｬｸﾌｧﾝ (M17)	1		
18AA	1075-5749-03	HOLDER ﾎﾙﾀﾞｰ	4		
19AA	1075-2071-01	SHAFT ｼｬﾌﾄ	1		
20AA	1075-5731-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
21AA	1033-4709-01	ROLL ﾛｰﾙ	4		
22AA	1161-5716-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
23AA	1075-5709-03	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
24AA	0961-5445-02	NEUTRALIZING BRUSH ESｸﾘｰﾅｰ	1		
25AA	1161-6821-01	HARNESS ﾊｰﾈｽ	1		
26AA	9335-1310-41	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ PAPER EXIT ﾊｲｼ (PC33)	1		
27AA	1075-5711-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
28AA	1200-2105-05	COLLAR ｶﾗｰ	1		
29AA	1075-5860-01	ACTUATOR ｱｸﾁｪｰﾀｰ	1		
30AA	1200-5213-01	PIN ﾋﾟﾝ	1		
31AA	1400-3356-14	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
32AA	1200-2366-02	SLEEVE ｽﾘｰﾌﾞ	1		
33AA	1075-5861-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
34AA	1075-2013-01	LOCK LEVER ﾛｯｸﾚﾊﾞｰ	1		
35AA	1075-2057-01	HANDLE ﾄｯﾃ	1		
36AA	1161-7320-01	LABEL OPEN ﾗﾍﾞﾙ	1		
37AA	1100-1321-03	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
38AA	1075-5747-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
39AA	1075-5797-01	WIRE ﾜｲﾔｰ	1		
40AA	1500-2640-04	MAGNET CATCH ﾏｸﾞﾈｯﾄｷｬｯﾁ	1		
41AA	1053-1324-01	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	2		
42AA	1075-1015-02	HINGE ﾋﾝｼﾞ	1		
43AA	1100-1321-12	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
44AA	1075-4008-01	TERMINAL ﾀｰﾐﾅﾙ	1		
45AA	1075-5508-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
46AA	1052-2306-01	NUT ﾅｯﾄ	2		
47AA	1100-1362-11	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
48AA	1161-0236-01	FRAME ﾌﾚｰﾑ	1		
49AA	1075-2012-01	COVER ｶﾊﾞｰ	1		
50AA	1075-4075-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
51AA	1075-4074-12	ACTUATOR ｱｸﾁｪｰﾀｰ	1		
52AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ CLEANER HOME ﾃｲｲﾁ (PC48)	1		
53AA	1075-4060-01	DUCT ﾀﾞｸﾄ	1		
54AA	1161-4073-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
55AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ	1		
56AA	1075-6871-03	HARNESS ﾊｰﾈｽ	1		
57AA	1161-4005-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		

5 UPPER FRAMES II 上フレーム部 II PARTS MANUAL



INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS	INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-6866-03	HARNESS ﾊｰﾈｽ	1								
02AA	1075-2004-01	LIGHT SHIELD PLATE ｼｬｺｳﾊﾞﾝ	1								
03AA	1100-1321-12	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2								
04AA	1075-2105-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
05AA	1075-2159-03	DUCT ﾀﾞｸﾄ	1								
06AA	1075-2167-01	DUCT ﾀﾞｸﾄ	1								
07AA	9313-1410-31	FAN MOTOR TONER SUCTION ﾌｧﾝﾓｰﾀｰ ﾄﾅｰｷｭｳｲﾝ (M20)	1								
08AA	1075-2709-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
09AA	1075-2165-03	FILTER ﾌｨﾙﾀｰ	1								
10AA	1161-6819-01	HARNESS ﾊｰﾈｽ	1								
11AA	1161-4002-01	TERMINAL ﾀｰﾐﾅﾙ	2								
12AA	1075-5603-01	SET PLATE ｵｻｴﾊﾞﾝ	1								
13AA	1075-5651-03	TONER PIPE ﾄﾅｰﾊﾟｲﾌﾟ	1								
14AA	1075-0260-02	AXLE PLATE ｼﾞｸﾊﾞﾝ	1								
15AA	1129-7303-01	LABEL HIGH VOLTAGE ﾗﾍﾞﾙ ｺｳｱﾂﾁｭｳｲ	1								
16AA	1075-5005-01	TERMINAL ﾀｰﾐﾅﾙ	1								
17AA	1075-5068-01	HOLDER ﾎﾙﾀﾞｰ	1								
18AA	1161-4056-01	HOLDER ﾎﾙﾀﾞｰ	1								
19AA	1065-1803-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	1								
20AA	1075-1806-01	MIRROR ﾐﾗｰ	1								
21AA	1075-2035-01	RAIL ﾚｰﾙ	2								
22AA	1075-2059-01	SLEEVE ｽﾘｰﾌﾞ	1								
23AA	1075-2058-01	ROLL ﾛｰﾙ	2								
24AA	1075-2151-01	DUCT ﾀﾞｸﾄ	1								
25AA	1075-2054-01	SHAFT ｼｬﾌﾄ	1								
26AA	1075-2060-01	SLEEVE ｽﾘｰﾌﾞ	1								
27AA	1075-2005-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1								
28AA	1075-4321-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
29AA	1075-6501-01	BOARD LAMP IMAGE ERASE ﾎﾞｰﾄﾞﾗﾝﾌﾟ ｲﾒｰｼﾞｲﾚｰ (LD1)	1								
30AA	1065-1802-02	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	1								
31AA	1075-4322-02	PLATE ﾌﾟﾚｰﾄ	1								
32AA	9384-1900-56	PWB SUPPORT 6.35H ｷﾊﾞﾝｻﾎﾟｰﾄ	1								
33AA	9384-1621-21	PWB SUPPORT 6.4H ｷﾊﾞﾝｻﾎﾟｰﾄ	1								
34AA	1161-2014-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
35AA	1075-2003-02	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1								

6 LOWER FRAMES 下フレーム部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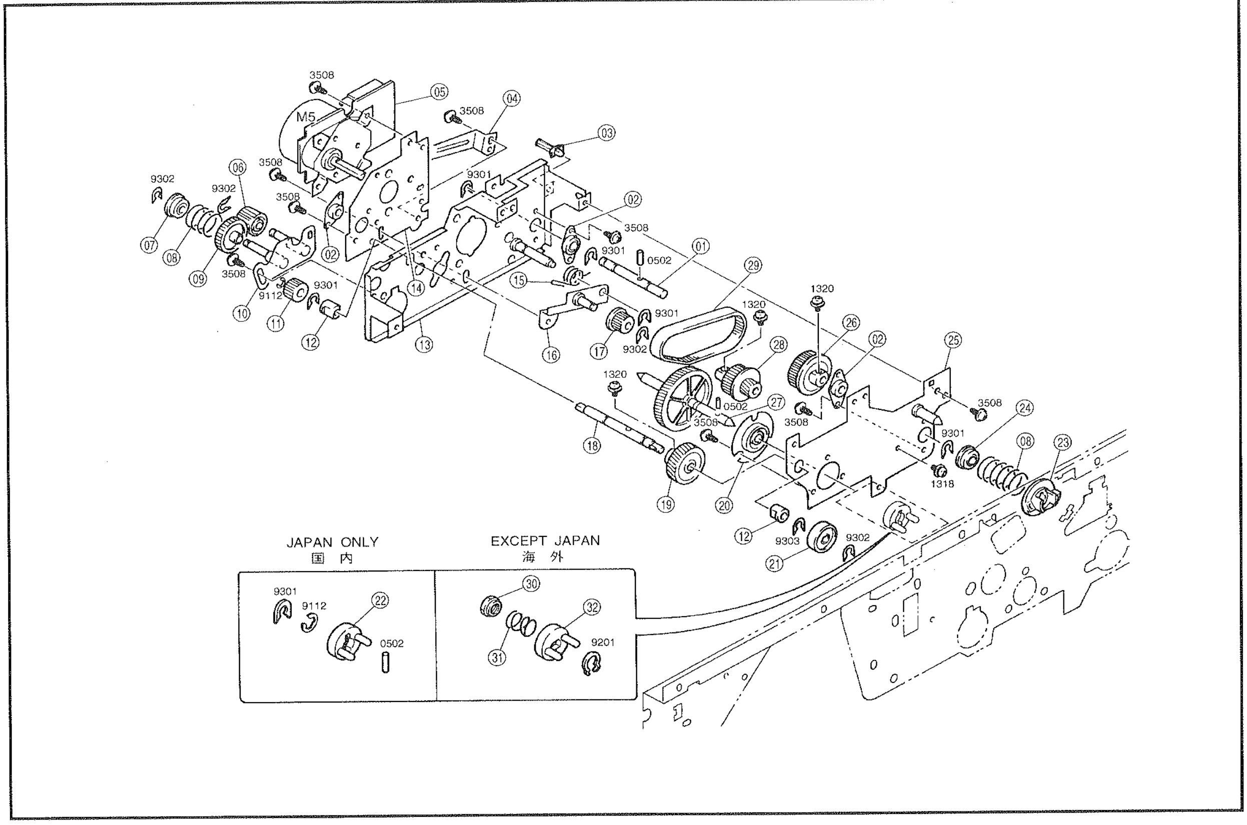
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1161-6852-01	HARNESS ﾊｰﾈｽ	1		
02AA	1075-3378-01	HOLDER ﾎﾙﾀﾞｰ	2		
03AA	1075-0229-02	HINGE ﾋﾝｼﾞ	2		
04AA	1075-2217-04	HOLD PLATE ﾎｼﾞﾊﾞﾝ	4		
05AA	1161-0238-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
06AA	1161-6817-01	HARNESS ﾊｰﾈｽ	1		
07AA	1075-0237-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
08AA	1075-5653-01	TONER PIPE ﾄﾅｰﾊﾟｲﾌﾟ	1		
09AA	1075-5652-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
10AA	1075-2041-02	BALANCER ﾊﾞﾗﾝｻｰ	2		
11AA	1075-2213-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	4		
12AA	1161-5602-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
13AA	1200-2105-05	COLLAR ｶﾗｰ	1		
14AA	1075-2422-01	COVER ｶﾊﾞｰ	1		
15AA	1136-4511-01	HOLDER ﾎﾙﾀﾞｰ	1		
*16AA	1161-6857-01	HARNESS ﾊｰﾈｽ	1	0511	
*16BA	1161-6831-01	HARNESS ﾊｰﾈｽ	1	2612	
17AA	9335-1310-31	PHOTO INTERRUPTER TONER BOX SET ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ﾊｲｷﾎﾞﾄﾙ (PC29)	1		
18AA	1200-5212-04	PIN ﾋﾟﾝ	1		
19AA	1136-4510-01	ACTUATOR ｱｸﾁｪｰﾀｰ	1		
20AA	1161-5606-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
21AA	1075-2222-02	PLATE ﾌﾟﾚｰﾄ	1		
22AA	1075-5655-03	COLLECTING BOTTLE ﾊｲｷﾎﾞﾄﾙ	1		
*23AA	9352-6310-61	HEATER PAPER DEHUM ﾋｰﾀｰ ﾍﾟｰﾊﾟｰｼﾞｮ (H7)	1	0710	
*23BA	9352-6310-61	HEATER OPTION ﾋｰﾀｰ ｵﾌﾟｼｮﾝ (H7)	1	2720	
24AA	1075-3713-01	COVER ｶﾊﾞｰ	1		
25AA	1075-5739-01	SUPPORT PLATE ｻﾎﾟｰﾄﾌﾟﾚｰﾄ	1		
*26AA	1075-3167-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2	2704	
*27AA	1075-3163-03	LOCK LEVER ﾛｯｸﾚﾊﾞｰ	2	2704	
*28AA	1075-0285-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	2	2704	
29AA	9331-2310-21	MICROSWITCH INTERLOCK ﾏｲｸﾛｽｲｯﾁ ﾄﾞｱ ｱﾝｾﾞﾝ (S2)	1		
30AA	1074-1103-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
31AA	1075-2417-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
32AA	1033-4001-01	COVER ｶﾊﾞｰ	1		
33AA	9334-2610-11	REED SWITCH PRE-DRIVE OFF ﾘｰﾄﾞｽｲｯﾁ ｶｲﾃﾝ OFF (S4)	1		
34AA	9323-1510-11	COUNTER TOTAL COUNTER ｶｳﾝﾀｰ ﾄｰﾀﾙ (CNT1)	1		
35AA	1075-1081-02	COVER ｶﾊﾞｰ	1		
36AA	1075-0261-03	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
37AA	1075-3074-02	GUIDE ｶﾞｲﾄﾞ	4		
38AA	1075-3109-13	STOPPER ｽﾄｯﾊﾟｰ	4		
39AA	1500-2640-04	MAGNET CATCH ﾏｸﾞﾈｯﾄｷｬｯﾁ	1		
40AA	1053-1324-01	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	2		
41AA	1100-3135-02	PLATE NUT ﾌﾟﾚｰﾄﾅｯﾄ	1		
42AA	9332-3610-12	MICROSWITCH INTERLOCK ﾏｲｸﾛｽｲｯﾁ ﾄﾞｱ ｱﾝｾﾞﾝ (S3)	1		
43AA	1161-3312-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
44AA	1075-0222-01	FRAME ﾌﾚｰﾑ	1		
45AA	1075-3512-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
46AA	1075-0223-01	FRAME ﾌﾚｰﾑ	1		
47AA	1075-3562-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
48AA	1075-0227-02	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
49AA	1075-2451-01	COVER ｶﾊﾞｰ	1		
50AA	1075-3710-01	COVER ｶﾊﾞｰ	1		
51AA	1075-3104-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	4		
52AA	1161-2222-01	COVER ｶﾊﾞｰ	1		
53AA	1161-2420-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		

7 UPPER DRIVE SECTION 上駆動部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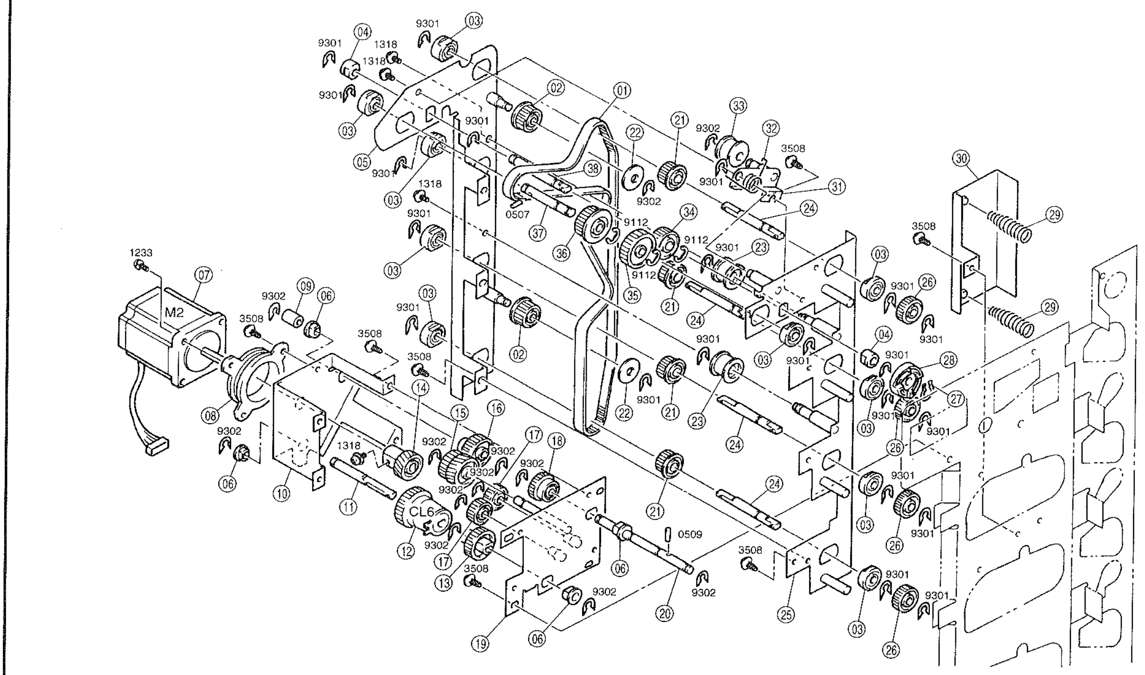
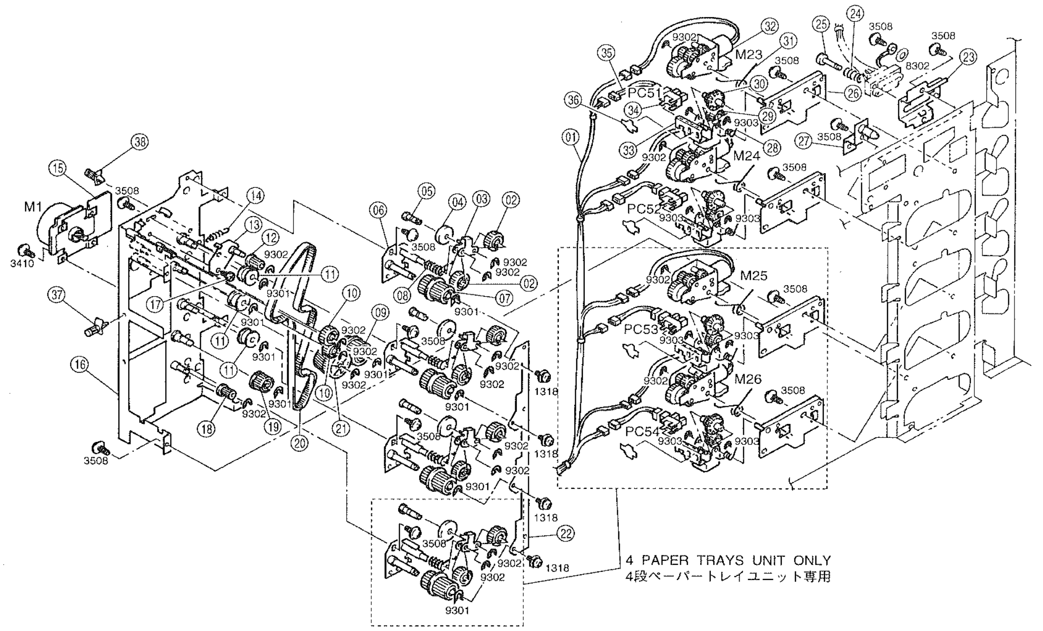
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS	INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-2756-02	SHAFT ｼｬﾌﾄ	1								
02AA	1036-3335-01	BUSHING ｼﾞｸｳｹ	3								
03AA	9384-1621-81	PWB SUPPORT 22.2H ｷﾊﾞﾝｻﾎﾟｰﾄ	1								
04AA	1076-2541-01	GROUND PLATE ｱｰｽﾊﾞﾝ	1								
05AA	9314-2610-21	PW BOARD-MOTOR PC DRUM DRIVE ﾓｰﾀｰﾄﾞﾗｲﾌﾞﾕﾆｯﾄ ｶﾝｺｳﾀｲ (M5)	1								
06AA	1075-2772-01	GEAR 16T ｷﾞｱｰ	1								
07AA	1052-4376-01	COLLAR ｶﾗｰ	1								
08AA	1400-1195-06	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	2								
09AA	1075-2759-01	GEAR 31T ｷﾞｱｰ	1								
10AA	1075-0259-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1								
11AA	1075-2753-01	GEAR 15T ｷﾞｱｰ	1								
12AA	1200-3134-08	BUSHING ｼﾞｸｳｹ	2								
13AA	1161-0257-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
14AA	1075-2707-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
15AA	1075-2766-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1								
16AA	1075-0258-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1								
17AA	1075-2773-01	PULLEY 18T ﾌﾟｰﾘｰ	1								
18AA	1075-2761-01	SHAFT ｼｬﾌﾄ	1								
19AA	1075-2760-01	GEAR 67T ｷﾞｱｰ	1								
20AA	1075-2704-01	HOLDER ﾎﾙﾀﾞｰ	1								
21AA	1075-2762-01	CAM ｶﾑ	1								
*22AA	1161-2765-01	JOINT ｼﾞｮｲﾝﾄ	1	1000							
23AA	1074-2566-02	JOINT ｼﾞｮｲﾝﾄ	1								
24AA	1075-2770-01	COLLAR ｶﾗｰ	1								
25AA	1161-0256-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
26AA	1075-2755-01	PULLEY 39T ﾌﾟｰﾘｰ	1								
*27AA	1161-2752-02	GEAR 116T ｷﾞｱｰ	1	1000							
*27BA	1161-2776-01	GEAR 116T ｷﾞｱｰ	1	2000							
28AA	1075-2754-03	PLY GEAR 30/29T ﾌﾟｰﾘｰｷﾞｱｰ	1								
29AA	1075-2763-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1								
*30AA	1161-2778-01	NUT ﾅｯﾄ	1	2000							
*31AA	1161-2774-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1	2000							
*32AA	1161-2777-01	JOINT ｼﾞｮｲﾝﾄ	1	2000							

8 LOWER DRIVE SECTION I 下駆動部 I



INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS	INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-2652-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1								
02AA	1136-2532-01	PULLEY 24T ﾌﾟｰﾘｰ	2								
03AA	1052-4461-01	BUSHING ｼﾞｸｳｹ	10								
04AA	1200-3134-16	BUSHING ｼﾞｸｳｹ	2								
05AA	1075-0244-01	FRAME ﾌﾚｰﾑ	1								
06AA	1200-3221-07	BUSHING ｼﾞｸｳｹ	4								
07AA	9314-1611-21	MOTOR VERT TRANS ﾓｰﾀｰ ﾀﾃﾊﾝｿｳ (M2)	1								
08AA	1075-2664-01	RETAINING RING ｺﾞﾑﾘﾝｸﾞ	1								
09AA	1075-2698-01	SLEEVE ｽﾘｰﾌﾞ	1								
10AA	1075-2525-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
11AA	1075-2693-12	SHAFT ｼｬﾌﾄ	1								
12AA	9322-1710-11	CLUTCH TAKE-UP ｸﾗｯﾁ ｷｭｳｼ (CL6)	1								
13AA	1075-2697-13	GEAR 24T ｷﾞｱｰ	1								
14AA	1075-2591-02	GEAR 20T ｷﾞｱｰ	1								
15AA	1075-2592-01	GEAR 25/25T ｷﾞｱｰ	1								
16AA	1075-2663-01	GEAR 31T ｷﾞｱｰ	1								
17AA	1300-3322-17	GEAR 20T ｷﾞｱｰ	2								
18AA	1075-2696-01	GEAR 21T ｷﾞｱｰ	1								
19AA	1075-0241-12	MOUNTING PLATE ﾄﾘﾂｹﾊﾞﾝ	1								
20AA	1075-2662-01	SHAFT ｼｬﾌﾄ	1								
21AA	1075-2655-01	PULLEY 22T ﾌﾟｰﾘｰ	4								
22AA	1075-2593-01	FLANGE ﾌﾗﾝｼﾞ	2								
23AA	1075-2599-01	PULLEY ﾌﾟｰﾘｰ	2								
24AA	1075-2653-01	SHAFT ｼｬﾌﾄ	4								
25AA	1075-0242-02	FRAME ﾌﾚｰﾑ	1								
26AA	1075-2654-01	GEAR 21T ｷﾞｱｰ	4								
27AA	1500-2610-18	C-RING Cﾘﾝｸﾞ	1								
28AA	1075-2673-01	PAWL ﾂﾒ	1								
*29AA	1075-3165-03	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	2	2704							
*30AA	1075-3132-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1	2704							
31AA	1075-0243-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1								
32AA	1075-2598-02	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1								
33AA	1136-2530-02	PULLEY ﾌﾟｰﾘｰ	1								
34AA	1075-2671-01	GEAR 27T ｷﾞｱｰ	1								
35AA	1075-2595-01	GEAR 35T ｷﾞｱｰ	1								
36AA	1075-2596-01	PULLEY 30T ﾌﾟｰﾘｰ	1								
37AA	1075-2597-01	SHAFT ｼｬﾌﾄ	1								
38AA	1075-2672-01	SHAFT ｼｬﾌﾄ	1								

9 LOWER DRIVE SECTION II 下駆動部 II



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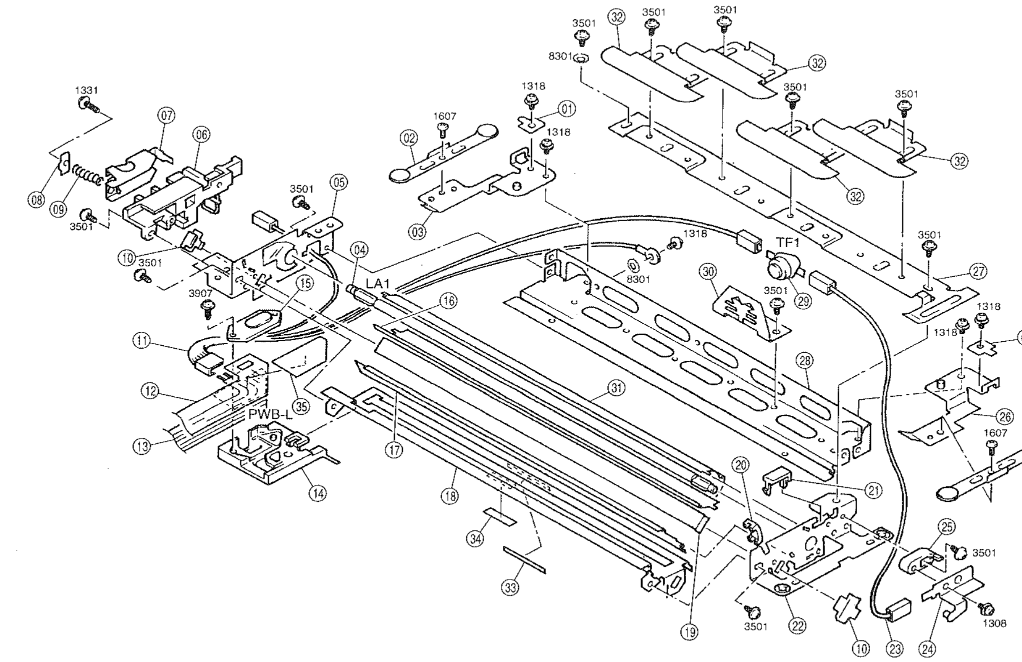
INDEX	PART NO.	PART NAME		QTY	AREA	REMARKS
*01AA	1161-6809-02	HARNESS ﾊｰﾈｽ		1	0702	
*01BA	1161-6808-02	HARNESS ﾊｰﾈｽ		1	2704	
*01CA	1161-6810-01	HARNESS ﾊｰﾈｽ	4 PAPER TRAYS 4ﾍﾟｰﾊﾟｰﾄﾚｲ	1	1000	
02AA	1075-2782-01	GEAR 23T ｷﾞｱｰ		8		
03AA	1075-2533-01	HOLDER ﾎﾙﾀﾞｰ		4		
04AA	1075-2797-01	COLLAR ｶﾗｰ		4		
05AA	1075-2796-01	SHAFT ｼｬﾌﾄ		4		
06AA	1075-0247-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		4		
07AA	1075-2792-01	PLY GEAR 28/23T ﾌﾟｰﾘｰｷﾞｱｰ		4		
08AA	1075-2795-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ		4		
09AA	1075-2785-01	PLY GEAR 36/33T ﾌﾟｰﾘｰｷﾞｱｰ		1		
10AA	1300-3332-08	GEAR 22T ｷﾞｱｰ		2		
11AA	1075-2599-01	PULLEY ﾌﾟｰﾘｰ		3		
12AA	1075-2789-01	PULLEY 15T ﾌﾟｰﾘｰ		1		
13AA	1075-0245-01	AXLE PLATE ｼﾞｸﾊﾞﾝ		1		
14AA	1075-2567-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ		1		
15AA	9314-2310-11	PWB-MOTOR ﾓｰﾀｰﾄﾞﾗｲﾌﾞﾕﾆｯﾄ	DRWR TAKE-UP ｷｭｳｼ (M1)	1		
16AA	1075-0246-02	FRAME ﾌﾚｰﾑ		1		
17AA	1100-1330-11	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ		1		
*18AA	1075-2789-01	PULLEY 15T ﾌﾟｰﾘｰ	4 PAPER TRAYS 4ﾍﾟｰﾊﾟｰﾄﾚｲ	1	1000	
19AA	1075-2788-01	PULLEY 24T ﾌﾟｰﾘｰ		1		
20AA	1075-2681-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ		1		
*20BA	1075-2787-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	4 PAPER TRAYS 4ﾍﾟｰﾊﾟｰﾄﾚｲ	1	1000	
21AA	1075-2783-01	GEAR 40/60T ｷﾞｱｰ		1		
22AA	1075-2534-01	SUPPORT PLATE ｻﾎﾟｰﾄﾌﾟﾚｰﾄ		1		
23AA	1075-3928-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
24AA	1400-1134-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ		2		
25AA	1100-1335-03	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ		2		
*26AA	1075-0218-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		4	0702	
27AA	1075-0262-01	AXLE PLATE ｼﾞｸﾊﾞﾝ		1		
*28AA	1075-3172-02	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ		4	0702	
*29AA	1075-3170-01	GEAR 16/32T ｷﾞｱｰ		4	0702	
*30AA	1075-3171-01	GEAR 20T ｷﾞｱｰ		4	0702	
*31AA	1075-3075-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ		4	0702	
*32AA	9312-1311-23	MOTOR ﾓｰﾀｰ	DRWR LIFT-UP ﾘﾌﾄ (M23-26)	4	0702	
*33AA	1075-3136-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		4	0702	
*34AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ	LIFT M PULSE (PC51-54)	4	0702	
*35AA	1075-6872-01	HARNESS ﾊｰﾈｽ		4	0702	
*36AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ		4	0702	
37AA	9384-1120-21	PW BOARD SPACER ｷﾊﾞﾝｽﾍﾟｰｻｰ		1		
38AA	9384-1621-21	PWB SUPPORT 6.4H ｷﾊﾞﾝｻﾎﾟｰﾄ		1		

10 EXPOSURE LAMP SECTION 露光ランプ部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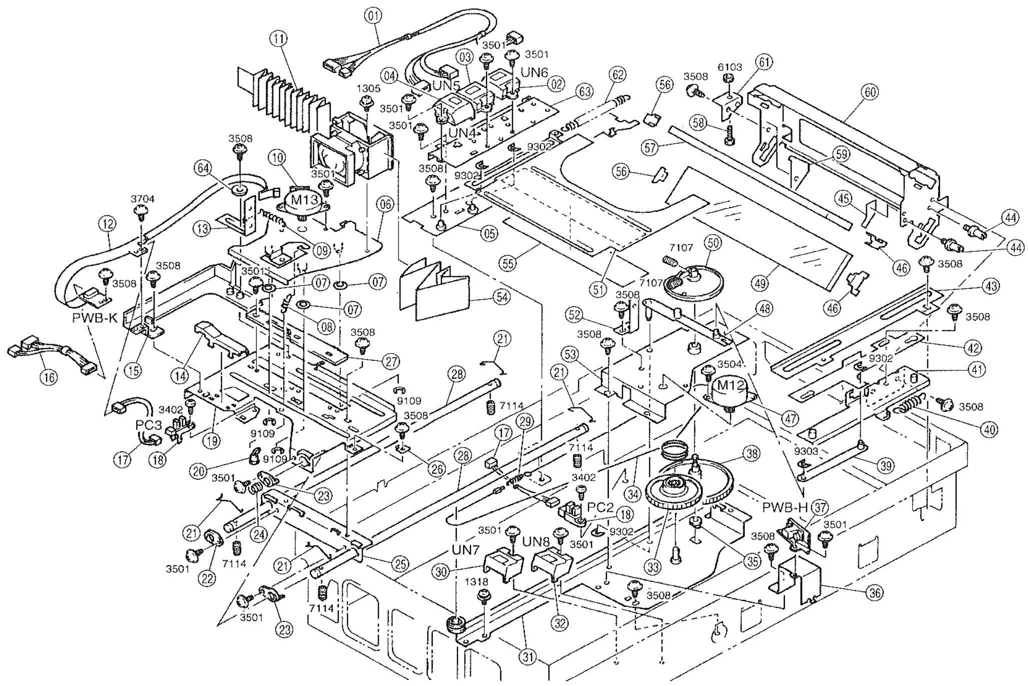
01AA	1033-3806-01	SUPPORT サポート	2								
02AA	1075-0756-01	PLATE SPRING イタバネ	2								
03AA	1075-0202-01	BRACKET トリツケバン	1								
*04AA	9351-2310-91	TUBE LAMP EXPOSURE チューブランプ ハロゲン (LA1)	1	0511							
*04BA	9351-2311-01	TUBE LAMP EXPOSURE チューブランプ ハロゲン (LA1)	1	2612							
05AA	1075-0755-02	REAR FRAME ウシロフレームアッセン	1								
06AA	1075-1452-03	HOLDER ホルダー	1								
07AA	1054-0235-01	TERMINAL ターミナル	1								
08AA	1075-1423-01	WASHER ワッシャー	1								
09AA	1075-1476-01	PRESSURE SPRING アッシュクスプリング	1								
10AA	1065-1802-02	PLATE SPRING プレートスプリング	2								
11AA	1075-6813-03	HARNESS ハーネス	1								
12AA	1075-1475-01	POLYESTER FILM ポリエステルフィルム	1								
13AA	1075-0113-03	PW BOARD-L LAMP FLEXIBLE プリントキバン L ランプ (PWB-L)	1								
14AA	1075-1455-06	SUPPORT サポート	1								
15AA	1031-4812-02	COVER カバー	1								
16AA	1075-1424-01	REFRECTOR ハンシャキョウ	1								
17AA	1075-1420-01	REFRECTOR ハンシャキョウ	1								
18AA	1075-1419-03	SHIELD PLATE シールドプレート	1								
19AA	1075-1470-01	MIRROR ミラー	1								
20AA	1033-4803-01	BUSHING ブッシュ	1								
21AA	1065-5872-01	CORD CLAMP コードオサエ	1								
22AA	1075-0754-02	FRONT FRAME マエフレームアッセン	1								
23AA	1075-6814-02	HARNESS ハーネス	1								
24AA	1075-0203-01	TERMINAL ターミナル	1								
25AA	1080-1401-03	HOLDER ホルダー	1								
26AA	1075-0201-01	BRACKET トリツケバン	1								
27AA	1075-1403-12	BRACKET トリツケバン	1								
28AA	1075-1407-02	MOUNTING PLATE トリツケバン	1								
29AA	9334-1310-21	THERMAL FUSE EXPOSURE LAMP オンドヒューズ ロコウランプ (TF1)	1								
30AA	1075-1418-02	BRACKET トリツケバン	1								
31AA	1075-1425-01	REFLECTOR ハンシャキョウ	1								
32AA	1075-1404-01	APERTURE BLADE ムラトリバン	4								
33AA	1075-1471-01	SEAL シール	1								
34AA	1075-1479-01	SEAL シール	1								
35AA	1075-1480-01	POLYESTER FILM ポリエステルフィルム	1								



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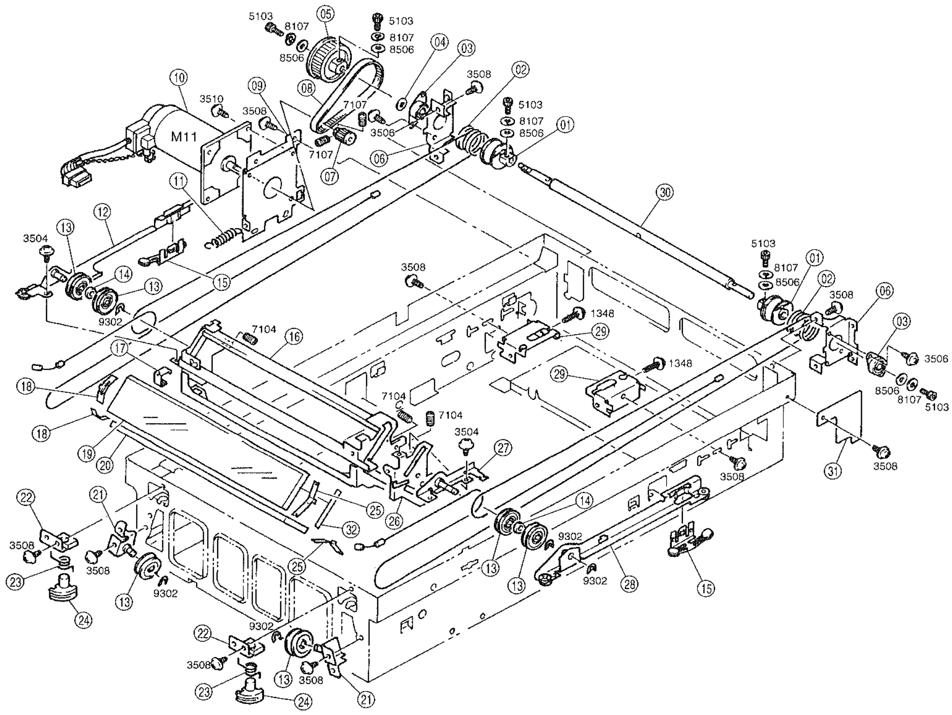
01AA	1075-6832-02	HARNESS ﾊｰﾈｽ	1		
02AA	9335-1310-11	PHOTO INTERRUPTER OPTION ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｵﾌﾟｼｮﾝ (UN6)	2		
03AA	9335-1310-11	PHOTO INTERRUPTER SIZE DETECT ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (UN5)	1		
04AA	9335-1310-11	PHOTO INTERRUPTER OOPTION ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｵﾌﾟｼｮﾝ (UN4)	2		
05AA	1075-0209-01	PLATE ﾌﾟﾚｰﾄ	1		
06AA	1075-0208-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
07AA	1200-1346-12	WASHER ﾜｯｼｬｰ	3		
08AA	1075-1766-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
09AA	1075-1956-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
10AA	9314-1311-41	MOTOR LENS Y ﾓｰﾀｰ ﾚﾝｽﾞｸﾄﾞｳ (M13)	1		
11AA	1075-1950-03	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
12AA	1075-0114-03	PW BOARD-K LENS FLEXIBLE ﾌﾟﾘﾝﾄｷﾊﾞﾝ K ﾚﾝｽﾞ (PWB-K)	1		
13AA	1075-1906-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
14AA	1075-1752-01	CORD CLAMP ｺｰﾄﾞｵｻｴ	1		
15AA	1075-1762-02	GUIDE ｶﾞｲﾄﾞ	1		
16AA	1075-6890-01	HARNESS ﾊｰﾈｽ	1		
17AA	1075-6872-01	HARNESS ﾊｰﾈｽ	2		
18AA	9335-1310-41	PHOTO INTERRUPTER MIRROR REF ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ﾚﾝｽﾞ (PC2,3)	2		
19AA	1075-1701-01	BASE FRAME ﾍﾞｰｽﾌﾚｰﾑ	1		
20AA	1075-1768-01	GUIDE ｶﾞｲﾄﾞ	1		
21AA	1036-3873-02	SPRING ｽﾌﾟﾘﾝｸﾞ	4		
22AA	1075-1751-01	BUSHING ｼﾞｸｳｹ	1		
23AA	1046-4815-01	BUSHING ｼﾞｸｳｹ	2		
24AA	1400-1174-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
25AA	1075-1713-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
26AA	1046-3808-01	RETAINING PLATE ｵｻｴﾊﾞﾝ	1		
27AA	1075-1759-01	RACK GEAR ﾗｯｸｷﾞｱｰ	1		
28AA	1075-1753-01	SHAFT ｼｬﾌﾄ	2		
29AA	1400-2965-03	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
30AA	9335-1310-21	PHOTO INTERRUPTER SIZE DETECT ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (UN7)	1		
31AA	1075-0213-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
32AA	9335-1310-21	PHOTO INTERRUPTER OPTION ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｵﾌﾟｼｮﾝ (UN8)	2		
33AA	1075-1775-01	GEAR 42/132T ｷﾞｱｰ	1		
34AA	1075-1760-01	WIRE ﾜｲﾔｰ	1		
35AA	1200-3221-04	BUSHING ｼﾞｸｳｹ	1		
36AA	1075-1721-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
37AA	1136-0108-03	PW BOARD-H AE SENSOR ﾌﾟﾘﾝﾄｷﾊﾞﾝ H EEｾﾝｻｰ (PWB-H)	1		
38AA	1036-4845-01	GEAR 172T ｷﾞｱｰ	1		
39AA	1075-0211-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
40AA	1400-2164-20	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
41AA	1075-0214-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
42AA	1075-1706-01	PLATE ﾌﾟﾚｰﾄ	1		
43AA	1075-1707-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
44AA	1075-1773-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
45AA	1075-1954-01	SEAL ｼｰﾙ	1		
46AA	1065-1803-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
47AA	9314-1311-31	MOTOR LENS X ﾓｰﾀｰ ﾚﾝｽﾞｸﾄﾞｳ (M12)	1		
48AA	1075-0210-01	ARM ｱｰﾑ	1		
49AA	1075-1805-01	MIRROR ﾐﾗｰ	1		
50AA	1046-4821-02	CAM 0 ｶﾑ	1		
50BA	1046-4822-02	CAM + ｶﾑ	1		
50CA	1046-4823-02	CAM ° ｶﾑ	1		
51AA	1075-1903-01	LIGHT SHIELD PLATE ｼｬｺｳﾊﾞﾝ	1		
52AA	1075-1905-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
53AA	1075-0212-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
54AA	1075-1951-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
55AA	1075-1958-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
56AA	1065-1802-02	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
57AA	1075-1804-01	MIRROR ﾐﾗｰ	1		
58AA	1054-4812-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
59AA	1075-1955-01	LIGHT SHIELD ｼｬｺｳｻﾞｲ	1		
60AA	1075-1801-02	3RD SLIDER ﾀﾞｲ3ｽﾗｲﾀﾞｰ	1		
61AA	1075-1718-02	SUPPORT PLATE ｻﾎﾟｰﾄﾌﾟﾚｰﾄ	1		
62AA	1075-1957-02	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
63AA	1075-1908-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
64AA	1200-1566-06	WASHER ﾜｯｼｬｰ	1		



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01AA	1075-1650-02	WIRE PULLEY ﾜｲﾔｰﾌﾟｰﾘｰ	2								
02AA	1075-1671-04	WIRE ﾜｲﾔｰ	2								
03AA	1031-3829-01	BUSHING ｼﾞｸｳｹ	2								
04AA	1075-1608-01	SPRING WASHER ｽﾌﾟﾘﾝｸﾞﾜｯｼｬｰ	1								
05AA	1161-1654-01	PULLEY 75T ﾌﾟｰﾘｰ	1								
06AA	1075-1602-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	2								
07AA	1075-1672-02	PULLEY 33T ﾌﾟｰﾘｰ	1								
08AA	1075-1673-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1								
09AA	1161-1605-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
10AA	9312-1311-41	MOTOR .SCANNER ﾓｰﾀｰ ｽｷｬﾅｰ (M11)	1								
11AA	1075-1660-03	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1								
12AA	1075-0758-01	SLIDE PLATE-RR ｳｼﾛ ｽﾗｲﾄﾞﾊﾞﾝ	1								
13AA	1075-1551-02	WIRE PULLEY ﾜｲﾔｰﾌﾟｰﾘｰ	6								
14AA	1075-1554-01	COLLAR ｶﾗｰ	2								
15AA	1075-0764-01	PLATE SPRING ｲﾀﾊﾞﾈ	2								
16AA	1075-1501-02	2ND SLIDER ﾀﾞｲ2ｽﾗｲﾀﾞｰ	1								
17AA	1075-1550-05	GUIDE ｶﾞｲﾄﾞ	1								
18AA	1075-1512-02	PLATE SPRING ｲﾀﾊﾞﾈ	2								
19AA	1075-1570-01	MIRROR ﾐﾗｰ	1								
20AA	1075-1574-01	MIRROR ﾐﾗｰ	1								
21AA	1075-0206-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	2								
22AA	1054-3861-01	HOLDER ﾎﾙﾀﾞｰ	2								
23AA	1075-1661-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	2								
24AA	1033-4811-01	LEVER ﾚﾊﾞｰ	2								
25AA	1075-1511-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2								
26AA	1075-1510-01	FRAME ﾌﾚｰﾑ	1								
27AA	1075-0205-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
28AA	1075-0757-01	SLIDE PLATE-FNT ﾏｴ ｽﾗｲﾄﾞﾊﾞﾝ	1								
29AA	1075-1612-01	ADJUSTING PLATE ﾁｮｳｾｲﾊﾞﾝ	2								
30AA	1161-1670-01	SHAFT ｼｬﾌﾄ	1								
31AA	1075-1363-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1								
32AA	1075-1471-01	SEAL ｼｰﾙ	1								

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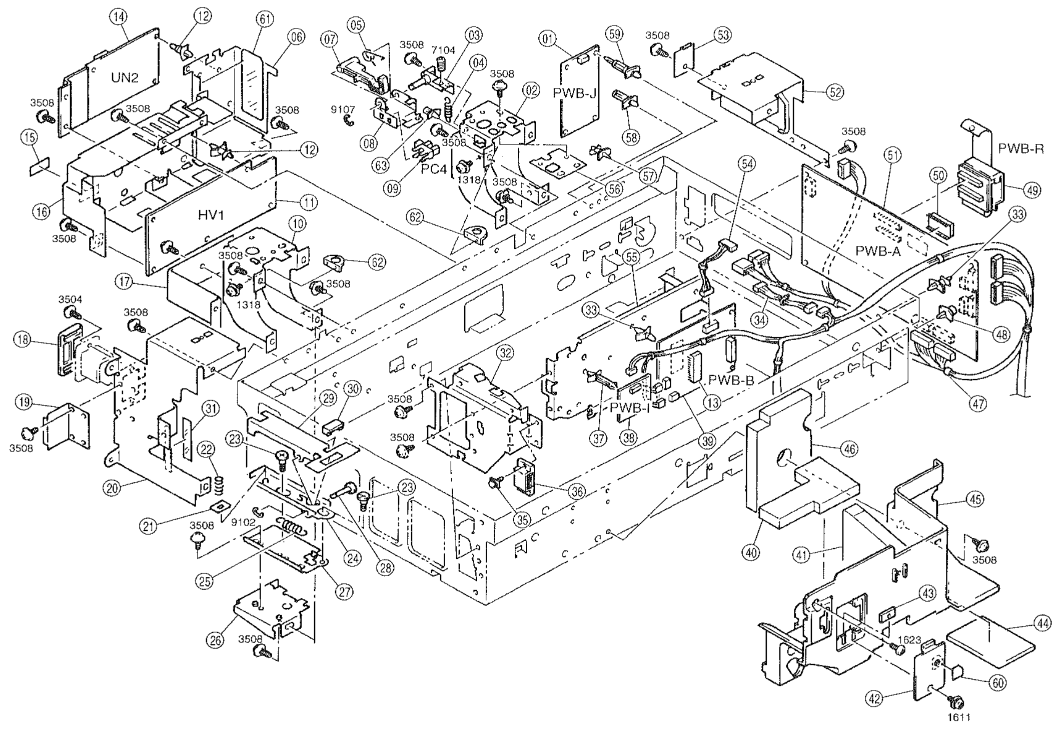
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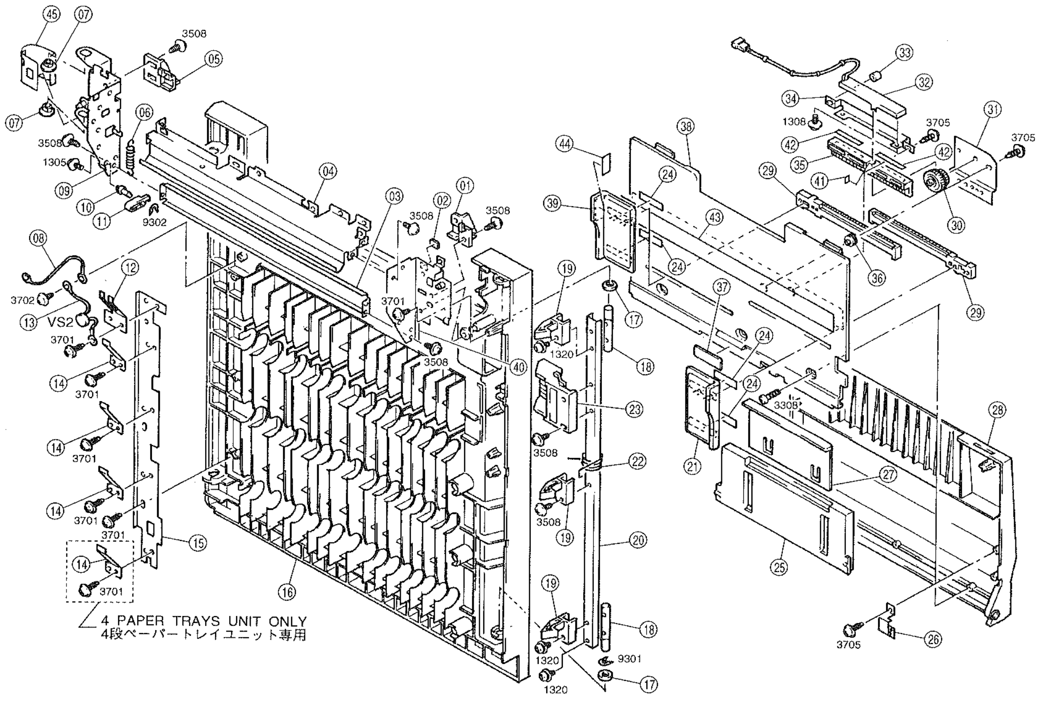
*01AA	9325-3310-31	PWB-PU EXPOSURE ﾃﾞﾝｹﾞﾝﾕﾆｯﾄ ﾗﾝﾌﾟ (PWB-J)	1	0511	
*01BA	9325-3310-41	PWB-PU EXPOSURE ﾃﾞﾝｹﾞﾝﾕﾆｯﾄ ﾗﾝﾌﾟ (PWB-J)	1	2612	
02AA	1075-2006-02	HOLD PLATE ﾎｼﾞﾊﾞﾝ	1		
03AA	1139-1726-02	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
04AA	1139-1725-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
05AA	1139-1724-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
06AA	1075-2413-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
07AA	1139-1722-02	LEVER ﾚﾊﾞｰ	1		
08AA	1139-1721-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
09AA	9335-1310-31	PHOTO INTERRUPTER ORIG COVER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｹﾞﾝｺｳｶﾊﾞ (PC4)	1		
10AA	1075-2007-02	HOLD PLATE ﾎｼﾞﾊﾞﾝ	1		
11AA	9325-1610-61	PWB-HV HIGH VOLTAGE ｺｳｱﾂﾄﾗﾝｽ ｺｳｱﾂ (HV1)	1		
12AA	9384-1900-57	PWB SUPPORT 9.53H ｷﾊﾞﾝｻﾎﾟｰﾄ	4		
*13AA	1161-6620-02	IC IC	1	0745	
*13BA	1161-6621-02	IC IC	1	2706	
*13CA	1161-6622-01	IC IC	1	2758	
*13DA	1161-6623-01	IC IC	1	2550	
14AA	1161-6053-01	PW BOARD SCP ﾌﾟﾘﾝﾄｷﾊﾞﾝ (UN2)	1		
15AA	1129-7303-01	LABEL HIGH VOLTAGE ﾗﾍﾞﾙ ｺｳｱﾂﾁｭｳｲ	1		
16AA	1161-2407-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
17AA	1075-2043-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
18AA	9384-2310-41	COVER ｶﾊﾞｰ	1		
19AA	1075-1030-01	PLATE ﾌﾟﾚｰﾄ	1		
20AA	1075-2418-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
21AA	1139-1922-02	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
22AA	1139-1923-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
23AA	1139-1919-02	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
24AA	1139-1917-03	SLIDER ｽﾗｲﾀﾞｰ	1		
25AA	1139-1920-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
26AA	1075-1305-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
27AA	1139-1916-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
28AA	1139-1921-01	SHAFT ｼｬﾌﾄ	1		
29AA	1151-1918-01	STOPPER ｽﾄｯﾊﾟｰ	1		
30AA	1136-1901-01	SPACER ｽﾍﾟｰｻｰ	1		
31AA	1075-3385-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
32AA	1075-2415-02	FRAME ﾌﾚｰﾑ	1		
33AA	9384-1900-56	PWB SUPPORT 6.35H ｷﾊﾞﾝｻﾎﾟｰﾄ	6		
*34AA	1161-6848-01	HARNESS ﾊｰﾈｽ	1	2424	
35AA	1053-1324-01	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	2		
36AA	1500-2640-04	MAGNET CATCH ﾏｸﾞﾈｯﾄｷｬｯﾁ	1		
37AA	9384-1220-61	PWB SUPPORT ｷﾊﾞﾝｻﾎﾟｰﾄ	4		
38AA	1156-0109-01	PW BOARD-I TECH.REP.SET ﾌﾟﾘﾝﾄｷﾊﾞﾝ I ｻｰﾋﾞｽ (PWB-I)	1		
39AA	1156-0102-02	PW BOARD-B MSC ﾌﾟﾘﾝﾄｷﾊﾞﾝ B (PWB-B)	1		
40AA	1075-1092-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
41AA	1075-1093-02	SPONGE ｽﾎﾟﾝｼﾞ	1		
42AA	1156-1027-01	COVER ｶﾊﾞｰ	1		
43AA	1100-3190-01	PLATE NUT ﾌﾟﾚｰﾄﾅｯﾄ	1		
44AA	1075-1095-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
45AA	1075-1064-04	COVER ｶﾊﾞｰ	1		
46AA	1075-1094-02	SPONGE ｽﾎﾟﾝｼﾞ	1		
47AA	1161-6802-02	HARNESS ﾊｰﾈｽ	1		
48AA	9384-1621-21	PWB SUPPORT 6.4H ｷﾊﾞﾝｻﾎﾟｰﾄ	5		
49AA	1139-0118-03	PW BOARD-R RAM ﾌﾟﾘﾝﾄｷﾊﾞﾝ R (PWB-R)	1		
50AA	1161-6601-02	IC IC	1		
51AA	1161-0101-02	PW BOARD-A MASTER ﾌﾟﾘﾝﾄｷﾊﾞﾝA ﾏｽﾀｰ (PWB-A)	1		
52AA	1161-1021-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
53AA	1075-1010-01	COVER ｶﾊﾞｰ	1		
*54AA	1136-6840-01	HARNESS ﾊｰﾈｽ	1	0749	
*54BA	1161-6853-02	HARNESS ﾊｰﾈｽ	1	2424	
55AA	1161-2411-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
56AA	1139-1330-01	ADJUSTING PLATE ﾁｮｳｾｲﾊﾞﾝ	1		
57AA	9384-1820-41	PWB SUPPORT 40.0H ｷﾊﾞﾝｻﾎﾟｰﾄ	2		
58AA	9384-1820-91	PWB SPACER 19.1H ｷﾊﾞﾝｽﾍﾟｰｻｰ	1		
59AA	9384-1900-60	PWB SUPPORT 19.1H ｷﾊﾞﾝｻﾎﾟｰﾄ	1		
60AA	1075-7345-01	SEAL ｼｰﾙ	1		
61AA	1161-2443-01	SEAL ｼｰﾙ	1		
*62AA	1075-7820-01	SUPPORT PLATE ﾎｷｮｳﾊﾞﾝ	2	2713	
63AA	9384-1900-55	PWB SUPPORT 9.53H ｷﾊﾞﾝｻﾎﾟｰﾄ	1		

14 MANUAL FEED SECTION I 手差し給紙部 I PARTS MANUAL



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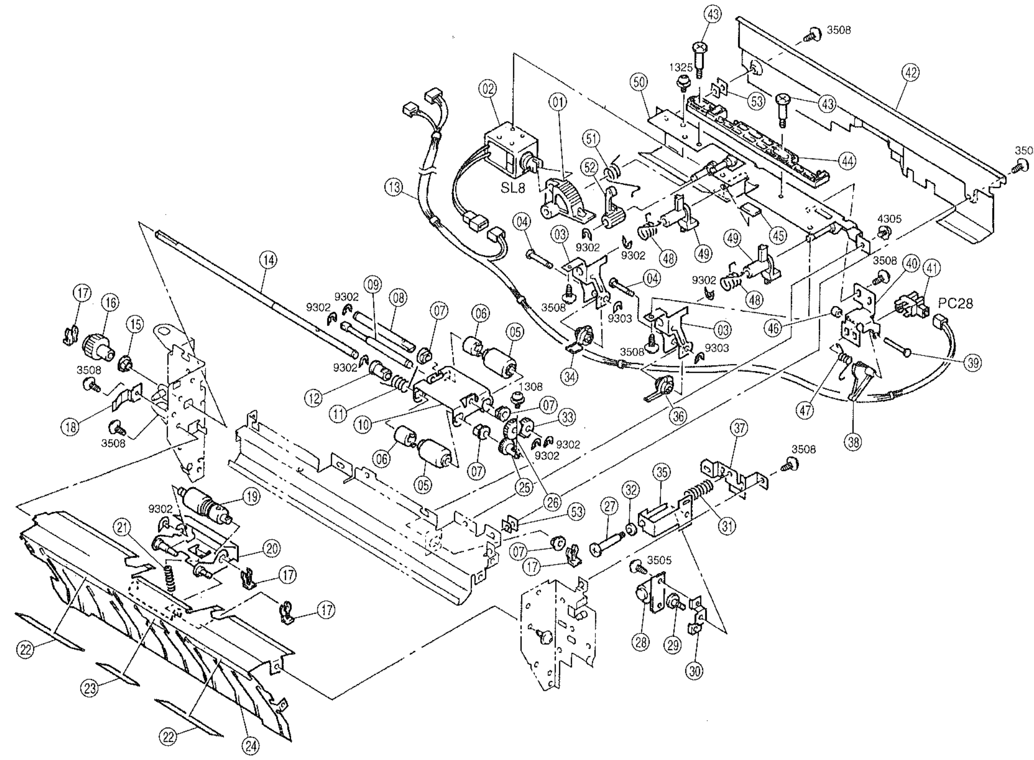
01AA	1075-3363-01	SUPPORT ｻﾎﾟｰﾄ	1		
02AA	1075-3382-01	RUBBER STRIP ｺﾞﾑ	1		
03AA	1075-3313-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
04AA	1075-3304-01	MOUNTING PLATE ﾄﾘﾂｹﾊﾞﾝ	1		
05AA	1075-3364-01	SUPPORT ｻﾎﾟｰﾄ	1		
06AA	1075-3322-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
07AA	1075-3377-01	BUSHING ｼﾞｸｳｹ	2		
08AA	1061-6869-01	GROUND WIRE ｱｰｽｺｰﾄﾞ	1		
09AA	1075-3302-02	FRAME ﾌﾚｰﾑ	1		
10AA	1075-3321-01	SHAFT ｼｬﾌﾄ	1		
11AA	1075-3362-01	LEVER ﾚﾊﾞｰ	1		
12AA	1075-3022-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	1		
13AA	1139-0420-01	VARISTOR MANUAL FEED ﾊﾞﾘｽﾀｰ ﾃｻﾞｼ (VS2)	1		
14AA	1075-3020-03	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	4		
15AA	1075-3019-02	PLATE ﾌﾟﾚｰﾄ	1		
16AA	1075-3071-03	DOOR ﾄﾞｱｰ	1		
17AA	1200-1566-03	WASHER ﾜｯｼｬｰ	2		
18AA	1075-3072-01	SHAFT ｼｬﾌﾄ	2		
19AA	1075-3080-01	LOCK RELEASE LEVER ﾛｯｸｶｲｼﾞｮﾚﾊﾞｰ	3		
20AA	1075-3014-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
21AA	1075-3355-02	GUIDE ｶﾞｲﾄﾞ	1		
22AA	1075-3016-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
23AA	1075-3077-01	HANDLE ﾄｯﾃ	1		
24AA	0704-5401-01	SEAL ｼｰﾙ	4		
25AA	1075-3358-02	TABLE ﾃｰﾌﾞﾙ	1		
26AA	1075-3324-01	PLATE ﾌﾟﾚｰﾄ	1		
27AA	1075-3373-01	GUIDE ｶﾞｲﾄﾞ	1		
28AA	1075-3353-03	COVER ｶﾊﾞｰ	1		
29AA	1075-3359-01	RACK GEAR ﾗｯｸｷﾞｱｰ	2		
30AA	1075-3361-01	GEAR 19/25T ｷﾞｱｰ	1		
31AA	1075-3326-01	SET PLATE ｵｻｴﾊﾞﾝ	1		
32AA	1075-0130-02	RESISTOR ﾃｲｺｳｷ	1		
33AA	1200-2105-05	COLLAR ｶﾗｰ	1		
34AA	1075-3325-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
35AA	1075-3360-01	RACK GEAR ﾗｯｸｷﾞｱｰ	1		
36AA	1075-3386-01	GEAR 10T ｷﾞｱｰ	1		
37AA	1052-5409-01	CORK ｺﾙｸ	1		
38AA	1075-3352-02	TABLE ﾃｰﾌﾞﾙ	1		
39AA	1075-3354-02	GUIDE ｶﾞｲﾄﾞ	1		
40AA	1161-0226-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
41AA	1075-3388-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
42AA	1075-3387-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	2		
*43AA	1161-7316-01	WIDTH SCALE ﾊﾊﾞｽｹｰﾙ	1	0400	
*43BA	1161-7317-01	WIDTH SCALE ﾊﾊﾞｽｹｰﾙ	1	2300	
44AA	1139-7360-01	LABEL MAX ﾗﾍﾞﾙ	1		
45AA	1161-3341-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		

15 MANUAL FEED SECTION II 手差し給紙部 II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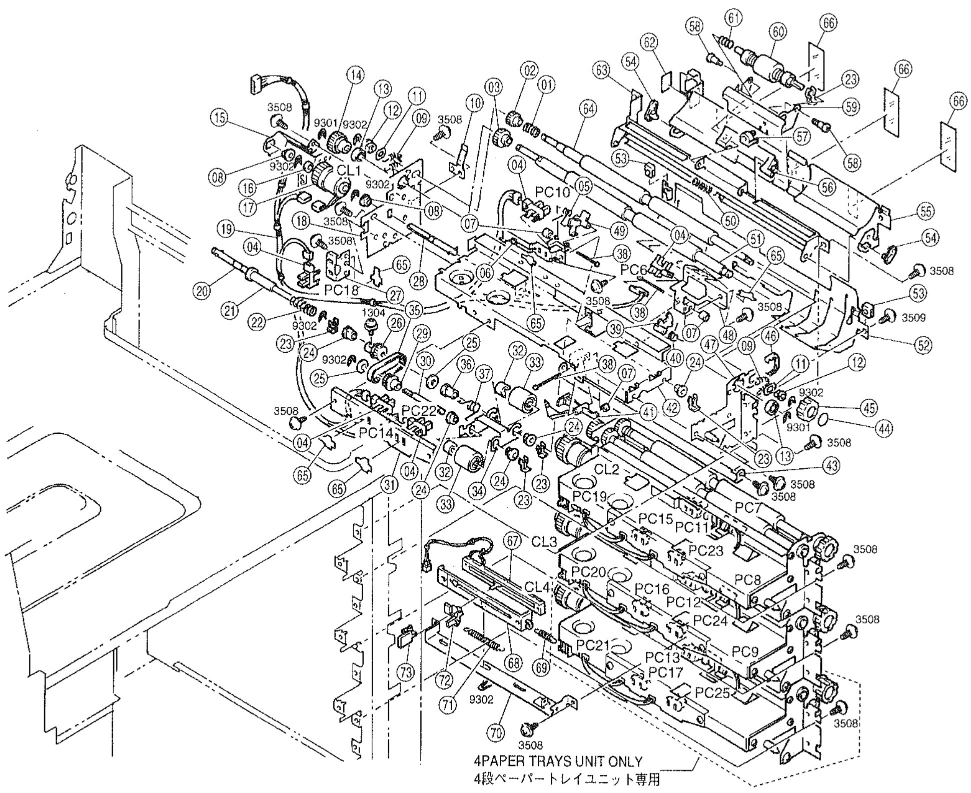
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1139-3348-02	SEGMENT GEAR ｷﾞｱｰ	1		
02AA	9321-2310-41	SOLENOID MAN PICK-UP ｿﾚﾉｲﾄﾞ ﾃｻﾞｼｷｭｳｼ (SL8)	1		
03AA	1075-3333-01	HOLDER ﾎﾙﾀﾞｰ	2		
04AA	1139-3368-01	SHAFT ｼｬﾌﾄ	2		
05AA	1052-5224-01	ROLLER ﾛｰﾗｰ	2		
06AA	1052-4221-01	CLUTCH ｸﾗｯﾁ	2		
07AA	1274-2611-01	BUSHING ｼﾞｸｳｹ	4		
08AA	1075-3309-01	SHAFT ｼｬﾌﾄ	1		
09AA	1075-3323-01	SHAFT ｼｬﾌﾄ	1		
10AA	1075-3305-01	HOLDER ﾎﾙﾀﾞｰ	1		
11AA	1075-3328-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
12AA	1200-3225-11	BUSHING ｼﾞｸｳｹ	1		
13AA	1075-6826-02	HARNESS ﾊｰﾈｽ	1		
14AA	1075-3307-01	SHAFT ｼｬﾌﾄ	1		
15AA	1200-3221-07	BUSHING ｼﾞｸｳｹ	1		
16AA	1075-3357-01	GEAR 21T ｷﾞｱｰ	1		
17AA	1033-4402-01	STOPPER RING ﾄﾒﾘﾝｸﾞ	4		
18AA	1075-3327-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	1		
19AA	1075-0163-02	SEPARATOR ROLLER ｻﾊﾞｷﾛｰﾗｰ	1		
20AA	1075-3306-01	HOLDER ﾎﾙﾀﾞｰ	1		
21AA	1075-3315-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
22AA	1075-3385-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	2		
23AA	1075-3366-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
24AA	1075-3303-05	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
25AA	1139-3354-01	GEAR 17T ｷﾞｱｰ	1		
26AA	1139-3318-01	GEAR 22T ｷﾞｱｰ	1		
27AA	1075-3338-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
28AA	1075-3340-01	MAGNET CATCH ﾏｸﾞﾈｯﾄｷｬｯﾁ	1		
29AA	1100-1340-10	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
30AA	1075-3332-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
31AA	1075-3339-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
32AA	1075-3376-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
33AA	1139-3367-01	GEAR 19T ｷﾞｱｰ	1		
34AA	1075-3390-01	LEVER ﾚﾊﾞｰ	1		
35AA	1075-3337-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
36AA	1075-3389-01	STOPPER ｽﾄｯﾊﾟｰ	1		
37AA	1075-3336-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
38AA	1075-3356-02	ACTUATOR ｱｸﾁｪｰﾀｰ	1		
39AA	1136-3149-01	SHAFT ｼｬﾌﾄ	1		
40AA	1075-3310-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
41AA	9335-1310-31	PHOTO INTERRUPTER MAN EMPTY ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ﾃｻﾞｼ (PC28)	1		
42AA	1075-3351-02	COVER ｶﾊﾞｰ	1		
43AA	1100-1332-14	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
44AA	1075-3383-01	LEVER ﾚﾊﾞｰ	1		
45AA	1139-3349-01	RUBBER STRIP ｺﾞﾑ	1		
46AA	1200-2105-05	COLLAR ｶﾗｰ	1		
47AA	1075-3318-02	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
48AA	1139-3369-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	2		
49AA	1139-3322-01	PAWL ﾂﾒ	2		
50AA	1075-0228-01	MOUNTING PLATE ﾄﾘﾂｹﾊﾞﾝ	1		
51AA	1139-3346-02	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
52AA	1139-3370-01	GEAR 14T ｷﾞｱｰ	1		
53AA	1054-5468-01	SPACER ｽﾍﾟｰｻｰ	4		

16 PAPER TAKE-UP SECTION 給 紙 部



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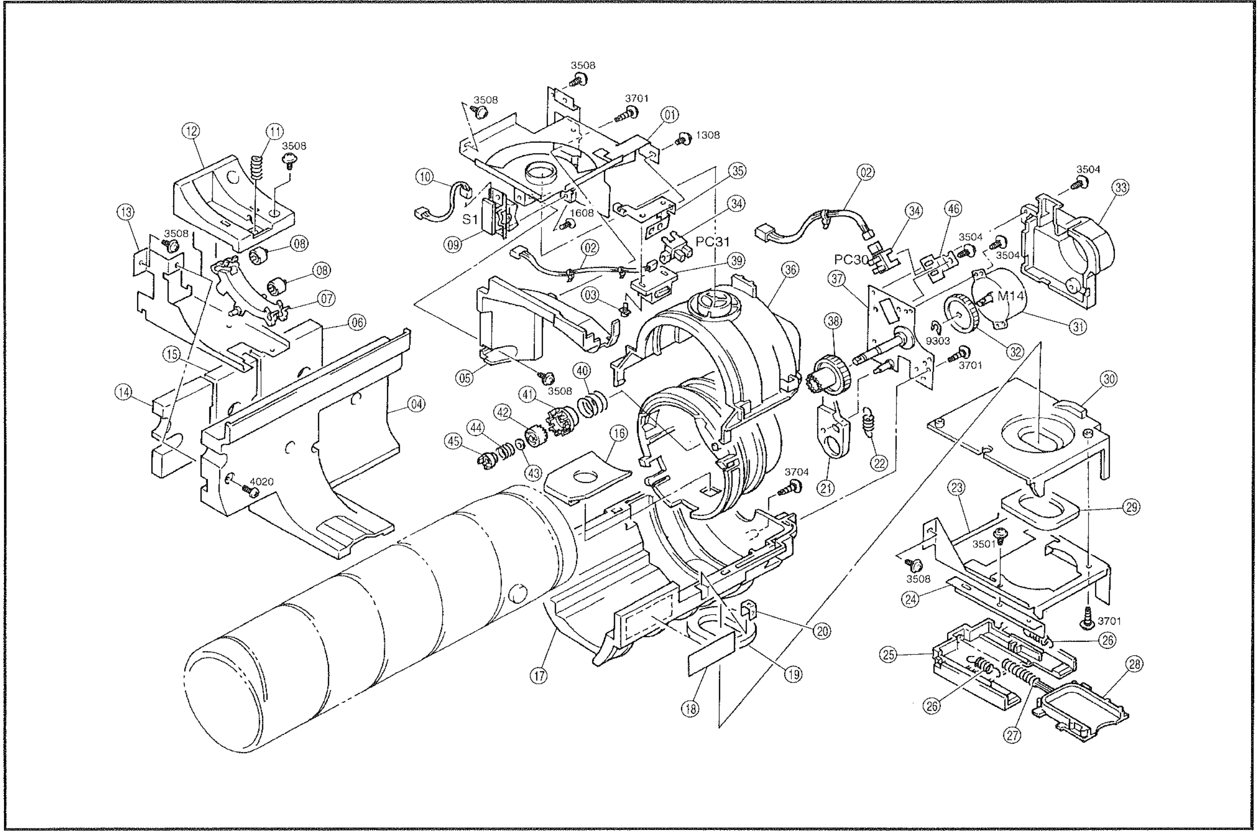
01AA	1075-3086-01	CLUTCH SPRING ｸﾗｯﾁｽﾌﾟﾘﾝｸﾞ	4		
02AA	1274-3607-01	GEAR 17T ｷﾞｱｰ	4		
03AA	1274-3606-02	GEAR 19T ｷﾞｱｰ	4		
04AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC6-25)	20		
05AA	1075-3066-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	4		
06AA	1075-3012-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	4		
07AA	1200-2105-07	COLLAR ｶﾗｰ	12		
08AA	1200-3221-07	BUSHING ｼﾞｸｳｹ	8		
09AA	1273-3505-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	8		
10AA	1075-3087-02	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	4		
11AA	1274-3605-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	8		
12AA	1070-3076-01	BUSHING ｼﾞｸｳｹ	8		
13AA	1273-3516-01	BALL BEARING ﾎﾞｰﾙﾍﾞｱﾘﾝｸﾞ	8		
14AA	1075-2859-01	GEAR 20T ｷﾞｱｰ	4		
15AA	1075-2801-01	SUPPORT PLATE ｻﾎﾟｰﾄﾌﾟﾚｰﾄ	4		
16AA	1075-2682-01	COLLAR ｶﾗｰ	4		
17AA	9322-1310-71	CLUTCH TAKE-UP ｸﾗｯﾁ ｷｭｳｼ (CL1-4)	4		
18AA	1075-0217-02	FRAME ﾌﾚｰﾑ	4		
19AA	1075-6822-02	HARNESS ﾊｰﾈｽ	4		
20AA	1075-3052-02	SHAFT ｼｬﾌﾄ	4		
21AA	1070-3071-01	JOINT ｼﾞｮｲﾝﾄ	4		
22AA	1070-3072-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	4		
23AA	1033-4402-01	STOPPER RING ﾄﾒﾘﾝｸﾞ	20		
24AA	1274-2611-01	BUSHING ｼﾞｸｳｹ	20		
25AA	1200-1646-03	WASHER ﾜｯｼｬｰ	8		
26AA	1075-3054-01	PULLEY 20T ﾌﾟｰﾘｰ	4		
27AA	1075-3021-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	4		
28AA	1075-2852-01	SHAFT ｼｬﾌﾄ	4		
29AA	1075-3055-01	PULLEY 22T ﾌﾟｰﾘｰ	4		
30AA	1075-3053-02	SHAFT ｼｬﾌﾄ	4		
31AA	1075-3009-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	4		
32AA	1259-4404-01	COLLAR ｶﾗｰ	8		
33AA	1075-3051-01	ROLLER ﾛｰﾗｰ	8		
34AA	1075-3004-01	HOLDER ﾎﾙﾀﾞｰ	4		
35AA	1075-3056-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	4		
36AA	1200-3225-11	BUSHING ｼﾞｸｳｹ	4		
37AA	1400-3354-34	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	4		
38AA	1200-5212-04	PIN ﾋﾟﾝ	12		
39AA	1075-3063-01	ACTUATOR ｱｸﾁｪｰﾀｰ	4		
40AA	1075-3064-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	4		
41AA	1075-3062-02	ACTUATOR ｱｸﾁｪｰﾀｰ	4		
42AA	1075-3001-02	MOUNTING PLATE ﾄﾘﾂｹﾊﾞﾝ	4		
43AA	1075-3015-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	4		
44AA	1075-7325-01	LABEL M5 ﾗﾍﾞﾙ	4		
45AA	1274-3602-02	KNOB ﾂﾏﾐ	4		
46AA	1273-3080-02	EDGE COVER ｴｯｼﾞｶﾊﾞｰ	4		
47AA	1075-0216-01	FRAME ﾌﾚｰﾑ	4		
48AA	1075-3007-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	4		
49AA	1075-3065-01	ACTUATOR ｱｸﾁｪｰﾀｰ	4		
50AA	1075-3057-03	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	4		
51AA	1075-3067-02	ROLLER ﾛｰﾗｰ	4		
52AA	1075-3010-04	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	4		
53AA	1076-3109-01	GUIDE ｶﾞｲﾄﾞ	8		
54AA	1274-3103-02	HOLD PLATE ﾎｼﾞﾊﾞﾝ	8		
55AA	1075-3017-03	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	4		
56AA	1075-3078-02	GUIDE ｶﾞｲﾄﾞ	4		
57AA	1273-3035-01	SPACER ｽﾍﾟｰｻｰ	4		
58AA	1100-1332-06	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	8		
59AA	1075-3006-02	HOLDER ﾎﾙﾀﾞｰ	4		
60AA	1075-0162-02	SEPARATOR ROLLER ｻﾊﾞｷﾛｰﾗｰ	4		
61AA	1400-1155-15	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	4		
62AA	1075-3091-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	4		
63AA	1075-3005-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	4		
64AA	1075-3068-01	ROLLER ﾛｰﾗｰ	4		
65AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ	20		
66AA	1161-3018-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	12		
67AA	1075-0130-02	RESISTOR ﾃｲｺｳｷ	1		
68AA	1161-3124-01	HOLDER ﾎﾙﾀﾞｰ	1		
69AA	1400-2242-04	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
70AA	1161-3123-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
71AA	1161-3126-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
72AA	1161-3125-02	LEVER ﾚﾊﾞｰ	1		
73AA	1161-3135-01	LEVER ﾚﾊﾞｰ	1		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01AA	1075-5204-02	FRAME ﾌﾚｰﾑ	1		
02AA	1075-6871-03	HARNESS ﾊｰﾈｽ	2		
03AA	1053-1324-01	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	2		
04AA	1075-1067-01	COVER ｶﾊﾞｰ	1		
05AA	1075-1054-02	COVER ｶﾊﾞｰ	1		
06AA	1075-1097-02	SPONGE ｽﾎﾟﾝｼﾞ	1		
07AA	1075-5256-01	HOLDER ﾎﾙﾀﾞｰ	1		
08AA	1038-4701-01	ROLL ﾛｰﾙ	2		
09AA	9332-5310-31	SWITCH ｽｲｯﾁ POWER SWITCH ﾒｲﾝｽｲｯﾁ (S1)	1		
10AA	1075-6872-01	HARNESS ﾊｰﾈｽ	1		
11AA	1075-5281-01	PRESSURE SPRING ｱｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
12AA	1075-5252-01	HOLDER ﾎﾙﾀﾞｰ	1		
13AA	1075-5203-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
14AA	1075-1096-02	SPONGE ｽﾎﾟﾝｼﾞ	1		
15AA	1075-1098-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
16AA	1075-5273-03	SPONGE ｽﾎﾟﾝｼﾞ	1		
17AA	1075-5253-02	HOPPER BODY ﾎｯﾊﾟｰﾎﾞﾃﾞｨ	1		
18AA	1075-5286-01	LABEL GREEN ﾗﾍﾞﾙ ﾐﾄﾞﾘ	1		
19AA	1075-5271-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
20AA	1075-5287-01	LABEL GREEN ﾗﾍﾞﾙﾐﾄﾞﾘ	1		
21AA	1161-5262-01	LEVER ﾚﾊﾞｰ	1		
22AA	1075-5284-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
23AA	1075-5201-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
24AA	1075-5206-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
25AA	1075-5264-02	LID ﾌﾀ	1		
26AA	1075-5282-02	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
27AA	1075-5283-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
28AA	1075-5260-01	SHUTTER ｼｬｯﾀｰ	1		
29AA	1075-5272-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
30AA	1075-5251-01	HOLDER ﾎﾙﾀﾞｰ	1		
31AA	9311-3310-31	MOTOR ﾓｰﾀｰ MAIN REPLEW ﾄﾅｰﾎｷｭｳ (M14)	1		
32AA	1161-5258-01	GEAR 36T ｷﾞｱｰ	1		
33AA	1075-5263-01	COVER ｶﾊﾞｰ	1		
34AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC30,31)	2		
35AA	1075-1002-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
36AA	1161-5254-01	COVER ｶﾊﾞｰ	1		
37AA	1161-0232-02	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
38AA	1161-5293-02	JOINT ｼﾞｮｲﾝﾄ	1		
39AA	1500-2640-04	MAGNET CATCH ﾏｸﾞﾈｯﾄｷｬｯﾁ	1		
40AA	1161-5292-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
41AA	1161-5294-02	JOINT ｼﾞｮｲﾝﾄ	1		
42AA	1161-5295-02	JOINT ｼﾞｮｲﾝﾄ	1		
43AA	1200-1442-03	WASHER ﾜｯｼｬｰ	1		
44AA	1161-5291-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
45AA	1161-5290-02	COLLAR ｶﾗｰ	1		
46AA	1161-5220-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		

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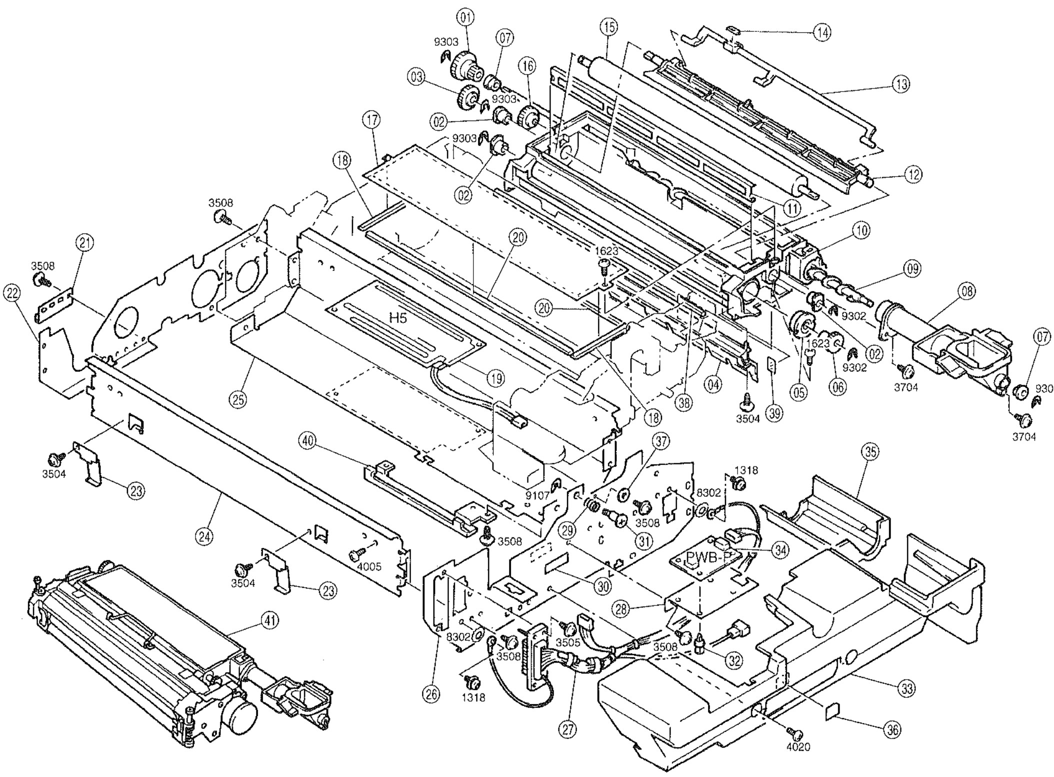
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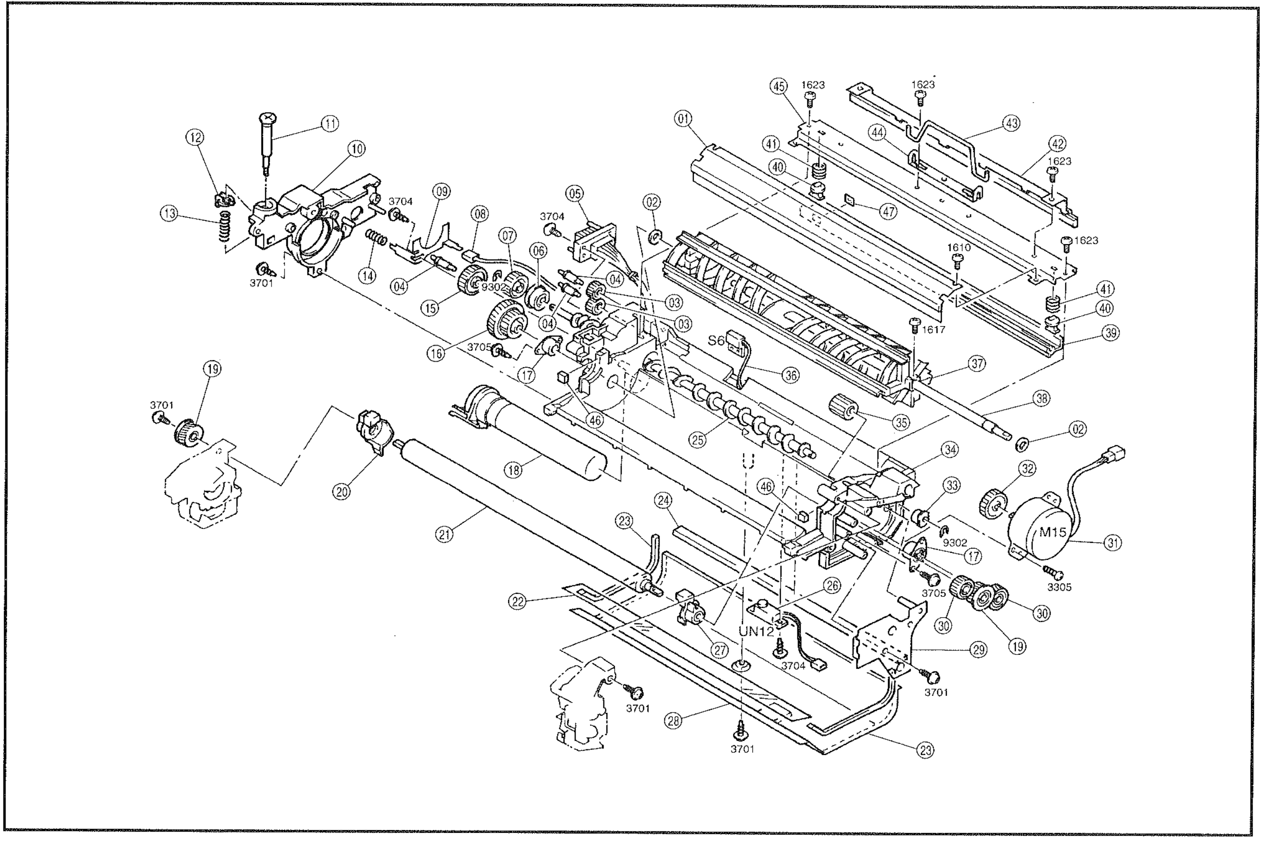
01AA	1075-5162-01	GEAR 13/27T ｷﾞｱｰ	1		
02AA	1065-5106-01	BUSHING ｼﾞｸｳｹ	3		
03AA	1300-3241-08	GEAR 28T ｷﾞｱｰ	1		
04AA	1075-5156-02	GUIDE ｶﾞｲﾄﾞ	1		
05AA	1075-5154-01	BUSHING ｼﾞｸｳｹ	1		
06AA	1075-5160-01	GEAR 17T ｷﾞｱｰ	1		
07AA	1200-3211-08	BUSHING ｼﾞｸｳｹ	2		
08AA	1075-5158-02	CONVEYOR DUCT ﾊﾝｿｳｶﾝ	1		
09AA	1075-5153-01	CONVEYOR ROLLER ﾊﾝｿｳﾛｰﾗｰ	1		
10AA	1075-5151-03	HOUSING ﾊｳｼﾞﾝｸﾞ	1		
11AA	1075-5101-02	PLATE ﾌﾟﾚｰﾄ	1		
12AA	1075-5157-01	MIXING ROLLER ｶｸﾊﾝﾛｰﾗｰ	1		
13AA	1075-5159-01	DETECTING PLATE ｹﾝｼｭﾂﾊﾞﾝ	1		
14AA	9326-2900-06	MAGNET ﾏｸﾞﾈｯﾄ	1		
15AA	1134-5154-02	ROLLER ﾛｰﾗｰ	1		
16AA	1075-5161-01	GEAR 13/26T ｷﾞｱｰ	1		
17AA	1075-5102-01	LID ﾌﾀ	1		
18AA	1075-5163-01	SPONGE ｽﾎﾟﾝｼﾞ	2		
19AA	9352-6820-21	HEATER DEVELOP DEHUM ﾋｰﾀｰ ｹﾞﾝｿﾞｳ (H5)	1		
20AA	1075-5166-01	SPONGE ｽﾎﾟﾝｼﾞ	2		
21AA	1161-4464-02	PLATE ﾌﾟﾚｰﾄ	1		
22AA	1161-2032-01	FRAME ﾌﾚｰﾑ	1		
23AA	1075-5505-04	GROUND PLATE ｱｰｽﾊﾞﾝ	2		
24AA	1075-2033-02	REINFOCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
25AA	1075-2034-01	BASE FRAME ﾍﾞｰｽﾌﾚｰﾑ	1		
26AA	1161-2031-01	FRAME ﾌﾚｰﾑ	1		
27AA	1075-6828-02	HARNESS ﾊｰﾈｽ	1		
28AA	1075-1083-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
29AA	1075-2052-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
30AA	1129-7303-01	LABEL HIGH VOLTAGE ﾗﾍﾞﾙ ｺｳｱﾂﾁｭｳｲ	1		
31AA	1075-2051-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
32AA	9384-1520-31	PWB SUPPORT ｷﾊﾞﾝｻﾎﾟｰﾄ	4		
33AA	1075-1066-02	COVER ｶﾊﾞｰ	1		
34AA	1075-0111-03	PW BOARD-P WIRE CLEANING ﾌﾟﾘﾝﾄｷﾊﾞﾝ P ｾｲｿｳ (PWB-P)	1		
35AA	1075-1058-01	HOLDER ﾎﾙﾀﾞｰ	1		
36AA	1075-7345-01	SEAL ｼｰﾙ	1		
37AA	1200-1331-06	WASHER ﾜｯｼｬｰ	1		
38AA	1075-5164-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
39AA	1075-5165-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
40AA	1161-2037-01	COVER ｶﾊﾞｰ	1		
41AA	1075-0339-18	DEVELOPING UNIT ｹﾞﾝｿﾞｳﾕﾆｯﾄ	1		



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01AA	1075-5001-03	REGULATING PLATE フンエンボウシバン	1		
02AA	1200-1566-04	WASHER ワッシャー	2		
03AA	1300-3312-15	GEAR 16T ギアー	2		
04AA	1075-5070-01	SHAFT シャフト	3		
05AA	1075-6830-02	HARNESS ハーネス	1		
06AA	1075-5154-01	BUSHING ジクウケ	1		
07AA	1300-3232-48	GEAR 24T ギアー	1		
08AA	1075-6874-01	HARNESS ハーネス	1		
09AA	1075-5006-03	TERMINAL ターミナル	1		
10AA	1075-5082-02	FRAME フレーム	1		
11AA	1075-5083-01	SHOULDER SCREW ダンネジ	1		
12AA	1279-3406-01	STOPPER RING トメリング	1		
13AA	1075-5080-01	PRESSURE SPRING アッシュクスプリング	1		
14AA	1400-1124-08	PRESSURE SPRING アッシュクスプリング	1		
15AA	1300-3342-21	GEAR 30T ギアー	1		
16AA	1075-5073-01	GEAR 26/44T ギアー	1		
17AA	1051-1603-01	BUSHING ジクウケ	2		
18AA	1075-5088-01	FILTER フィルター	1		
19AA	1075-5072-01	GEAR 22T ギアー	2		
20AA	1075-5059-06	BUSHING ジクウケ	1		
21AA	1075-5053-01	MAGNET ROLLER マグネットローラー	1		
22AA	1075-5075-01	POLYESTER FILM ポリエステルフィルム	1		
23AA	1075-5095-01	SPONGE スポンジ	2		
24AA	1075-5089-01	SPONGE スポンジ	1		
25AA	1075-5065-01	CONVEYOR ROLLER ハンソウローラー	1		
26AA	1075-6054-04	ATDC UNIT ATDC ATDC ユニット (UN12)	1		
27AA	1075-5058-05	BUSHING ジクウケ	1		
28AA	1075-5007-01	PLATE プレート	1		
29AA	1075-0233-03	AXLE PLATE ジクバン	1		
30AA	1075-5071-01	GEAR 18T ギアー	2		
31AA	9312-1310-71	MOTOR SUB REPLEW モーター トナーハンソウ (M15)	1		
32AA	1300-3142-04	GEAR 26T ギアー	1		
33AA	1065-5106-01	BUSHING ジクウケ	1		
34AA	1075-5060-05	DEVELOPING HOUSING ゲンゾウソウ	1		
35AA	1300-3312-08	GEAR 16T ギアー	1		
36AA	9334-2320-31	REED SWITCH TONER EMPTY リードスイッチ トナーエンプティ (S6)	1		
37AA	1075-0763-01	BUCKET ROLLER バケットローラー	1		
38AA	1075-5087-01	SHAFT シャフト	1		
39AA	1075-5066-02	HOLDER ホルダー	1		
40AA	1075-5076-01	HOLDER ホルダー	2		
41AA	1075-5077-01	PRESSURE SPRING アッシュクスプリング	2		
42AA	1075-0753-12	BRACKET ASSY トリツケバンアッセン	1		
43AA	1053-1652-02	HANDLE トッテ	1		
44AA	1075-5004-01	SUPPORT PLATE サポートプレート	1		
45AA	1075-5003-13	BRACKET トリツケバン	1		
46AA	1075-5098-01	SPONGE スポンジ	2		
47AA	1075-5100-01	POLYESTER FILM ポリエステルフィルム	1		

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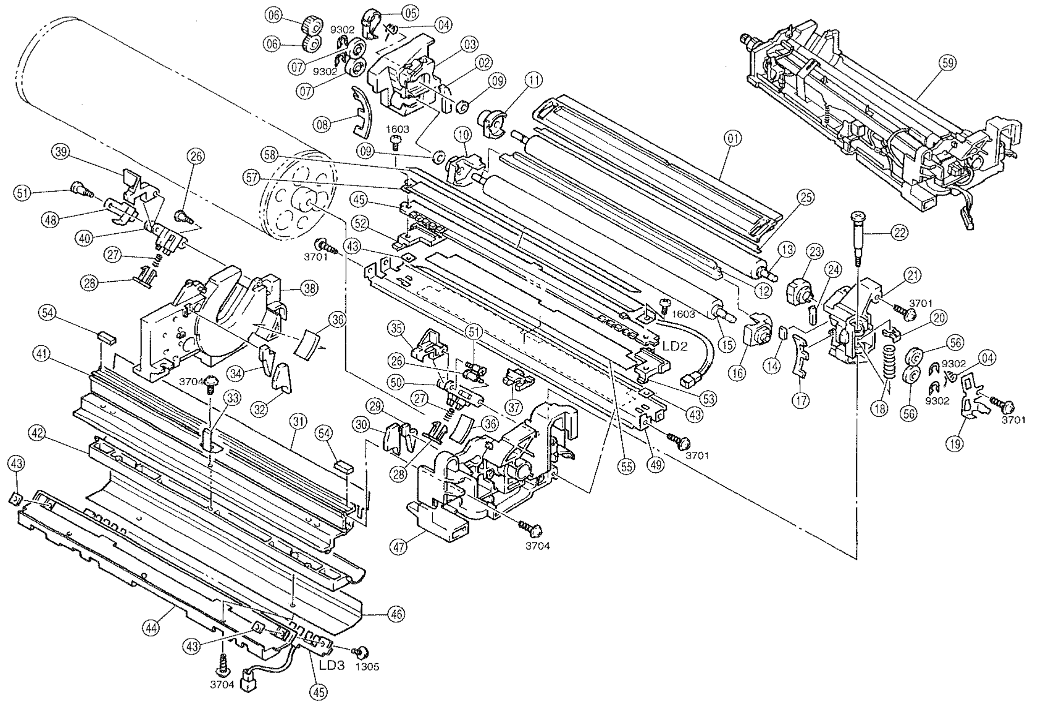

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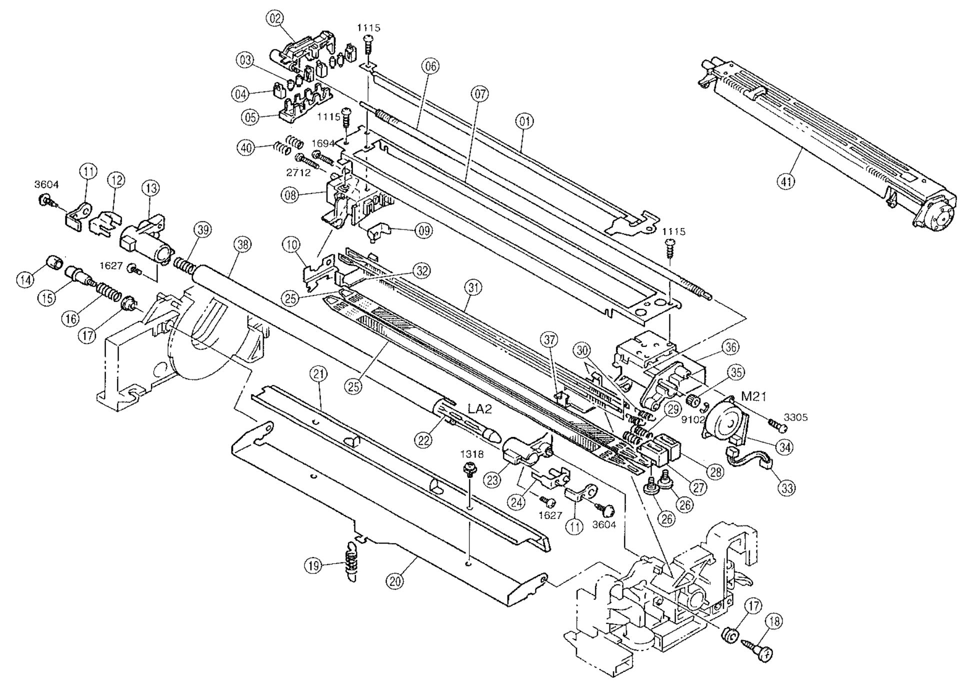
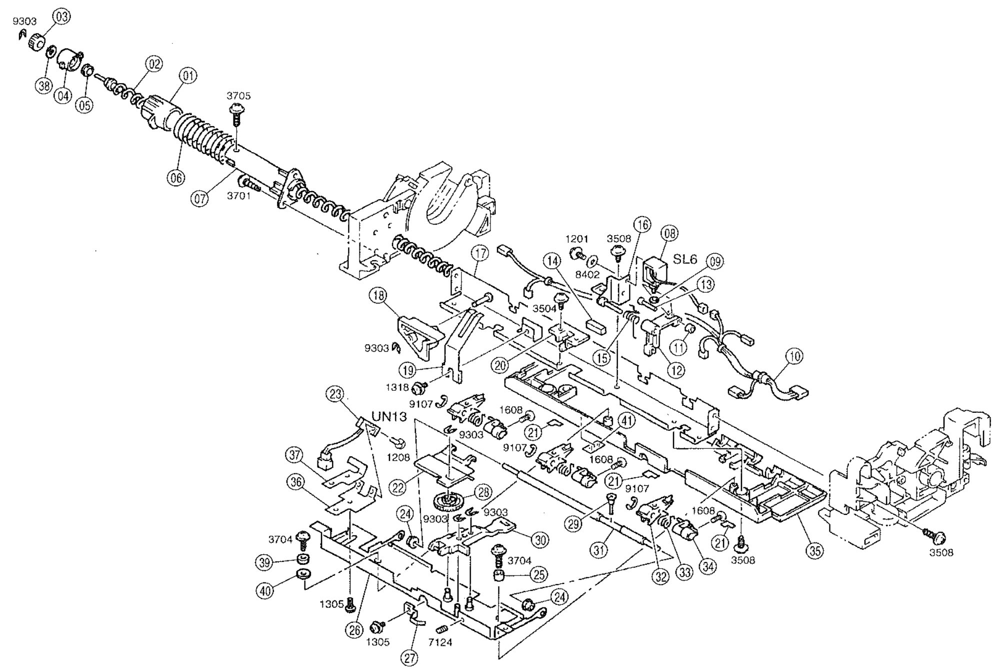
01AA	1075-5069-03	REGULATING PLATE ﾌﾝｴﾝﾎﾞｳｼﾊﾞﾝ	1		
02AA	1075-5091-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
03AA	1075-5063-03	HOLDER-RR ｳｼﾛﾎﾙﾀﾞｰ	1		
04AA	1075-5064-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	2		
05AA	1075-5067-02	SET PLATE ｵｻｴﾊﾞﾝ	1		
06AA	1075-5071-01	GEAR 18T ｷﾞｱｰ	2		
07AA	1075-5044-01	DS COLLAR DSｶﾗｰ	2		
08AA	1075-5094-03	SPONGE ｽﾎﾟﾝｼﾞ	1		
09AA	1200-1341-03	WASHER ﾜｯｼｬｰ	2		
10AA	1075-0762-02	BUSHING ｼﾞｸｳｹ	1		
11AA	1075-0760-01	BUSHING ｼﾞｸｳｹ	1		
12AA	1075-5078-02	PLATE ﾌﾟﾚｰﾄ	1		
13AA	1075-5051-01	MAGNET ROLLER-UPR ｳｴﾏｸﾞﾈｯﾄﾛｰﾗｰ	1		
14AA	1075-5096-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
15AA	1075-5052-01	MAGNET ROLLER-LWR ｼﾀﾏｸﾞﾈｯﾄﾛｰﾗｰ	1		
16AA	1075-0761-03	BUSHING ｼﾞｸｳｹ	1		
17AA	1075-5086-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
18AA	1075-5080-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
19AA	1075-5002-02	TERMINAL ﾀｰﾐﾅﾙ	1		
20AA	1279-3406-01	STOPPER RING ﾄﾒﾘﾝｸﾞ	1		
21AA	1075-5062-04	HOLDER-FNT ﾏｴﾎﾙﾀﾞｰ	1		
22AA	1075-5083-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
23AA	1075-0759-02	BUSHING ｼﾞｸｳｹ	1		
24AA	1075-5090-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
25AA	1075-5097-02	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
26AA	1100-1342-08	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
27AA	1400-1126-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	2		
28AA	1022-4552-02	HOLDER ﾎﾙﾀﾞｰ	2		
29AA	1075-5580-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
30AA	1075-5585-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
31AA	1075-5582-03	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
32AA	1075-5586-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
33AA	1075-5509-01	GROUND PLATE ｱｰｽﾊﾞﾝ	1		
34AA	1075-5581-01	SPONGE ｽﾎﾟﾝｼﾞ	1		
35AA	1022-4523-01	HOOK ﾌｯｸ	1		
36AA	1075-5583-01	MAT ﾏｯﾄ	2		
37AA	1075-4178-01	HOLDER ﾎﾙﾀﾞｰ	1		
38AA	1075-5552-03	REAR FRAME ｳｼﾛﾌﾚｰﾑ	1		
39AA	1074-4210-01	HOOK ﾌｯｸ	1		
40AA	1075-5562-02	LOCK LEVER ﾛｯｸﾚﾊﾞｰ	1		
41AA	1075-5571-01	HOLDER ﾎﾙﾀﾞｰ	1		
42AA	1075-5553-12	GUIDE ｶﾞｲﾄﾞ	1		
43AA	1100-3130-08	PLATE NUT ﾌﾟﾚｰﾄﾅｯﾄ	4		
44AA	1075-5557-03	HOLDER ﾎﾙﾀﾞｰ	1		
45AA	1074-6511-03	LED ERASE LED (LD2, 3)	2		
46AA	1074-0156-01	ANTISPILL PLATE ﾄﾅｰﾋｻﾝﾎﾞｳｼﾊﾞﾝ	1		
47AA	1075-5551-03	FRONT FRAME ﾏｴﾌﾚｰﾑ	1		
48AA	1075-5521-01	GROUND PLATE ｱｰｽﾊﾞﾝ	1		
49AA	1075-4122-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
50AA	1075-5561-02	LOCK LEVER ﾛｯｸﾚﾊﾞｰ	1		
51AA	1100-1431-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
52AA	1075-4177-01	HOLDER ﾎﾙﾀﾞｰ	1		
53AA	1075-4176-01	HOLDER ﾎﾙﾀﾞｰ	1		
54AA	1075-5587-01	SPONGE ｽﾎﾟﾝｼﾞ	2		
55AA	1075-4179-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
56AA	1075-5045-01	DS COLLAR DSｶﾗｰ	2		
57AA	1161-4123-01	ANTISPILL PLATE ﾄﾅｰﾋｻﾝﾎﾞｳｼﾊﾞﾝ	1		
58AA	1161-4180-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
59AA	1161-0374-01	CLEANING UNIT ｸﾘｰﾆﾝｸﾞﾕﾆｯﾄ	1		

21 CLEANING SECTION II クリーナー部 II



INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1161-4081-02	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
02AA	1161-4063-01	HOLDER ﾎﾙﾀﾞｰ	1		
03AA	1139-4257-01	ROLL ﾛｰﾙ	4		
04AA	1139-4260-01	HOLDER ﾎﾙﾀﾞｰ	4		
05AA	1161-4481-01	HOLDER ﾎﾙﾀﾞｰ	1		
06AA	1075-4061-02	CONVEYOR SHAFT ﾊﾝｿｳｼｬﾌﾄ	1		
07AA	1161-4001-01	HOUSING ﾊｳｼﾞﾝｸﾞ	1		
08AA	1161-4052-02	HOLDER ﾎﾙﾀﾞｰ	1		
09AA	1161-4086-01	TERMINAL ﾀｰﾐﾅﾙ	1		
10AA	1161-4087-01	TERMINAL ﾀｰﾐﾅﾙ	1		
11AA	1075-4353-01	GUIDE ｶﾞｲﾄﾞ	2		
12AA	1075-4303-01	TERMINAL ﾀｰﾐﾅﾙ	1		
13AA	1161-4352-01	HOLDER ﾎﾙﾀﾞｰ	1		
14AA	1036-4524-02	SLIDER ｽﾗｲﾀﾞｰ	1		
15AA	1100-1935-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
16AA	1400-1154-06	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
17AA	1038-4512-01	BUSHING ｼﾞｸｳｹ	2		
18AA	1075-5574-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
19AA	1075-5572-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
20AA	1075-5517-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
21AA	1075-0902-01	CLEANING BLADE KIT ｸﾘｰﾅｰﾌﾞﾚｰﾄﾞｷｯﾄ	1		
22AA	9351-1820-41	TUBE LAMP MAIN ERASE ﾁｭｰﾌﾞﾗﾝﾌﾟ ﾒｲﾝｲﾚｰｽ (LA2)	1		
23AA	1075-4351-01	HOLDER ﾎﾙﾀﾞｰ	1		
24AA	1075-4302-01	TERMINAL ﾀｰﾐﾅﾙ	1		
25AA	1161-4058-01	GRID ｸﾞﾘｯﾄﾞ	2		
26AA	1100-1341-05	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
27AA	1161-4084-01	HOLDER ﾎﾙﾀﾞｰ	1		
28AA	1161-4085-01	HOLDER ﾎﾙﾀﾞｰ	1		
29AA	1075-4072-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	2		
30AA	1139-4263-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
31AA	1161-4053-01	CORONA PLATE ﾁｬｰｼﾞﾊﾞﾝ	2		
32AA	1161-4083-01	LID ﾌﾀ	1		
33AA	1075-6870-02	HARNESS ﾊｰﾈｽ	1		
34AA	9314-1310-31	MOTOR WIRE CLEANING ﾓｰﾀｰ ｾｲｿｳ (M21)	1		
35AA	1075-4062-01	GEAR 14T ｷﾞｱｰ	1		
36AA	1161-4051-01	HOLDER ﾎﾙﾀﾞｰ	1		
37AA	1161-4082-01	LID ﾌﾀ	1		
38AA	1075-4301-02	REFRECTOR ﾊﾝｼｬｷｮｳ	1		
39AA	1400-1154-03	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
40AA	1400-1124-08	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	2		
41AA	1161-0369-01	DRUM CHARGE CORONA ﾀｲﾃﾞﾝﾁｬｰｼﾞﾕﾆｯﾄ	1		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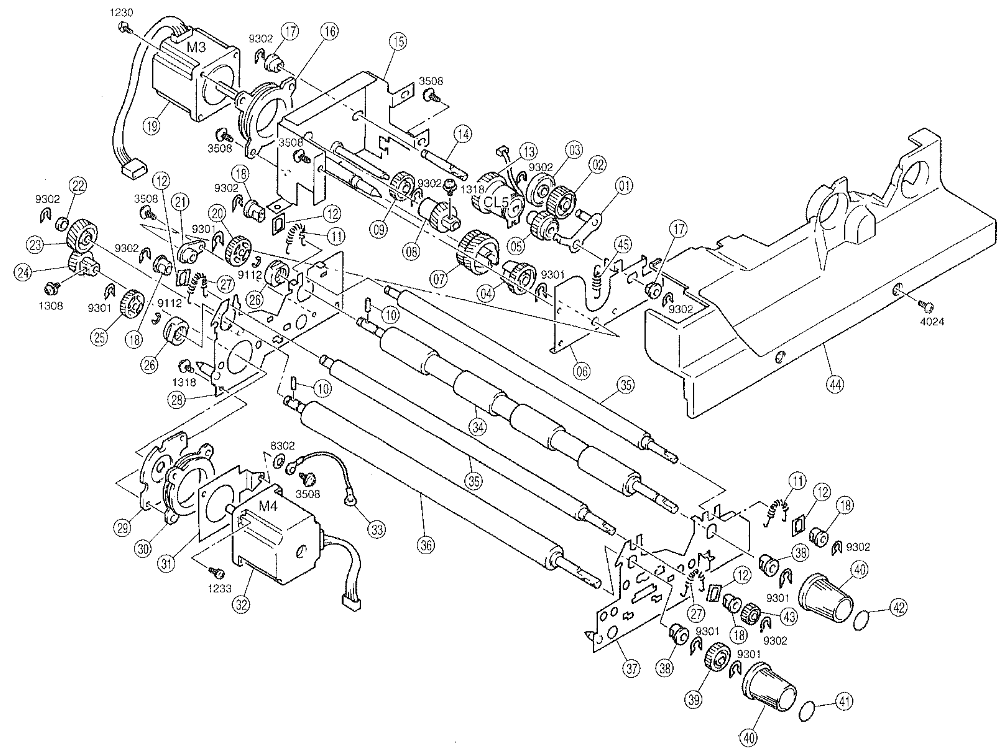
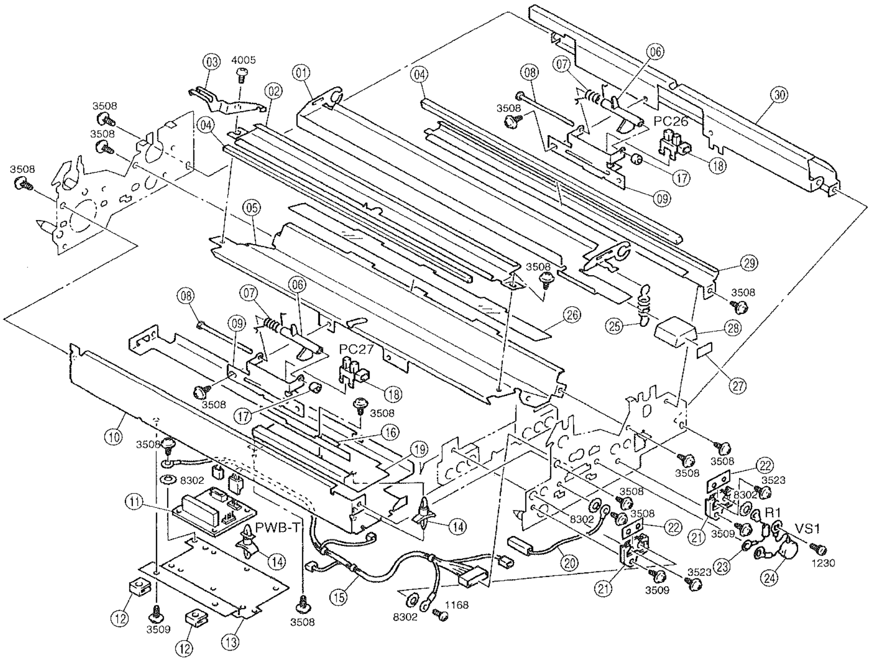
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-5554-03	SHUTTER シャッター	1		
02AA	1075-5506-01	CONVEYOR ROLLER ハンソウローラー	1		
03AA	1075-5558-01	GEAR 14T ギアー	1		
04AA	1075-5555-01	HOLDER ホルダー	1		
05AA	0723-5613-01	SEAL ゴムシール	1		
06AA	1075-5573-01	PRESSURE SPRING アッシュクスプリング	1		
07AA	1075-5560-13	TONER PIPE トナーパイプ	1		
08AA	9321-2310-22	SOLENOID SEPARATOR ソレノイド ブンリヅメ (SL6)	1		
09AA	1075-4221-01	RETAINING RING ゴムリング	1		
10AA	1075-6829-13	HARNESS ハーネス	1		
11AA	1200-2105-07	COLLAR カラー	1		
12AA	1075-4254-01	LEVER レバー	1		
13AA	1200-5201-01	PIN ピン	1		
14AA	1075-5584-01	SPONGE スポンジ	1		
15AA	1075-4281-01	TORSION SPRING ネジリスプリング	1		
16AA	1075-0230-02	BRACKET トリツケバン	1		
17AA	1075-0234-01	MOUNTING PLATE トリツケバン	1		
18AA	1075-5559-02	LEVER レバー	1		
19AA	1075-4304-01	GROUND PLATE アースバン	1		
20AA	1075-5567-01	HOLDER ホルダー	1		
21AA	1075-5588-01	POLYESTER FILM ポリエステルフィルム	3		
22AA	1075-4252-01	SET PLATE オサエバン	1		
23AA	9372-1310-31	AIDC UNIT AIDC AIDCユニット (UN13)	1		
24AA	1200-3202-06	BUSHING ジクウケ	2		
25AA	1200-2346-09	COLLAR カラー	1		
26AA	1075-0231-03	BRACKET トリツケバン	1		
27AA	1032-3524-02	PAWL ツメ	1		
28AA	1075-4253-02	RATCHET ラチェット	1		
29AA	1100-1901-01	SHOULDER SCREW ダンネジ	1		
30AA	1075-4251-02	LEVER レバー	1		
31AA	1075-4241-02	SHAFT シャフト	1		
32AA	1075-0154-01	SEPARATOR ブンリヅメ	3		
33AA	1075-4280-03	TORSION SPRING ネジリスプリング	3		
34AA	1075-4250-01	LEVER レバー	3		
35AA	1075-5556-04	HOLDER ホルダー	1		
36AA	1075-4203-12	BRACKET トリツケバン	1		
37AA	1075-4205-01	LIGHT SHIELD PLATE シャコウバン	1		
38AA	1200-1232-01	WASHER ワッシャー	1		
39AA	1075-5563-01	COLLAR カラー	1		
40AA	1200-2121-10	COLLAR カラー	1		
41AA	1075-4271-01	POLYESTER FILM ポリエステルフィルム	1		

23 TRANSPORT SECTION I 搬送部 I



INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-0239-01	LEVER ﾚﾊﾞｰ	1		
02AA	1075-2565-01	GEAR 25T ｷﾞｱｰ	1		
03AA	1075-2568-01	SPACER ｽﾍﾟｰｻｰ	1		
04AA	1075-2561-01	GEAR 27T ｷﾞｱｰ	1		
05AA	1075-2564-01	GEAR 20T ｷﾞｱｰ	1		
06AA	1075-2541-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
07AA	1075-2552-01	GEAR 31/31T ｷﾞｱｰ	1		
08AA	1161-2551-01	GEAR 20T ｷﾞｱｰ	1		
09AA	1300-3332-08	GEAR 22T ｷﾞｱｰ	1		
10AA	1067-2503-01	PIN ﾋﾟﾝ	2		
11AA	1273-3505-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
12AA	1075-3579-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	4		
13AA	9322-1310-81	CLUTCH ｸﾗｯﾁ MAN TAKE-UP ﾏﾆｭｱﾙ (CL5)	1		
14AA	1075-2563-01	SHAFT ｼｬﾌﾄ	1		
15AA	1161-0240-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
16AA	1075-2664-01	RETAINING RING ｺﾞﾑﾘﾝｸﾞ	1		
17AA	1200-3221-07	BUSHING ｼﾞｸｳｹ	2		
18AA	1200-3225-07	BUSHING ｼﾞｸｳｹ	4		
19AA	9314-1611-61	MOTOR ﾓｰﾀｰ TRANSPORT ﾁｭｳｶﾝ (M3)	1		
20AA	1075-3581-01	GEAR 24T ｷﾞｱｰ	1		
21AA	1075-3566-01	BUSHING ｼﾞｸｳｹ	1		
22AA	1200-1346-01	COLLAR ｶﾗｰ	1		
23AA	1075-3583-01	GEAR 23T ｷﾞｱｰ	1		
24AA	1075-3568-01	GEAR 21T ｷﾞｱｰ	1		
25AA	1075-3569-01	GEAR 21T ｷﾞｱｰ	1		
26AA	1052-4461-01	BUSHING ｼﾞｸｳｹ	2		
27AA	1400-2512-15	TORSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
28AA	1075-0225-02	REAR FRAME ｳｼﾛﾌﾚｰﾑ	1		
29AA	1075-3582-01	SPACER ｽﾍﾟｰｻｰ	1		
30AA	1075-3561-02	RETAINING RING ｺﾞﾑﾘﾝｸﾞ	1		
31AA	1075-3509-01	GROUND PLATE ｱｰｽﾊﾞﾝ	1		
32AA	9314-1611-71	MOTOR ﾓｰﾀｰ SYNCHRONIZING ﾀｲﾐﾝｸﾞ (M4)	1		
33AA	1161-6847-01	HARNESS ﾊｰﾈｽ	1		
34AA	1075-3553-02	ROLLER ﾛｰﾗｰ	1		
35AA	1075-3552-01	ROLLER ﾛｰﾗｰ	2		
36AA	1075-3551-02	ROLLER ﾛｰﾗｰ	1		
37AA	1161-0224-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
38AA	1200-3235-04	BUSHING ｼﾞｸｳｹ	2		
39AA	1300-3122-27	GEAR 20T ｷﾞｱｰ	1		
40AA	1077-3101-02	KNOB ﾂﾏﾐ	2		
41AA	1075-7322-01	LABEL M2 ﾗﾍﾞﾙ	1		
42AA	1075-7324-01	LABEL M4 ﾗﾍﾞﾙ	1		
43AA	1300-3212-27	GEAR 15T ｷﾞｱｰ	1		
44AA	1075-1065-13	COVER ｶﾊﾞｰ	1		
45AA	1075-2567-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		

24 TRANSPORT SECTION II 搬送部 II PARTS MANUAL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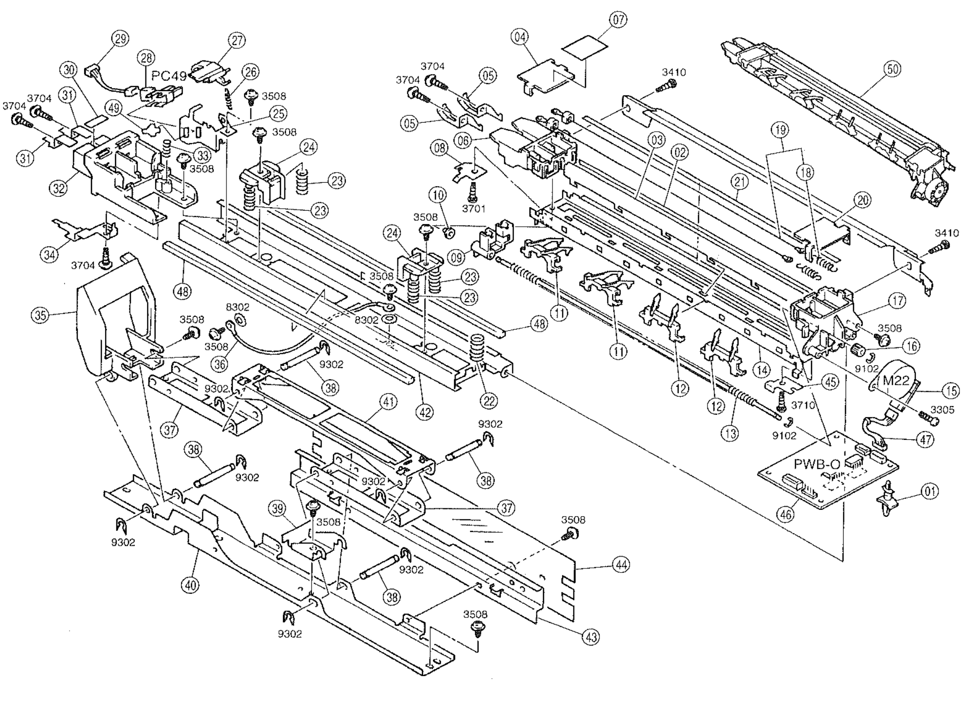
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS	INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-3508-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1								
02AA	1075-3502-14	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1								
03AA	1075-3514-02	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	1								
04AA	1075-3584-01	SPONGE ｽﾎﾟﾝｼﾞ	2								
05AA	1075-3501-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1								
06AA	1075-3572-01	ACTUATOR ｱｸﾁｪｰﾀｰ	2								
07AA	1075-3576-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	2								
08AA	1200-5213-03	PIN ﾋﾟﾝ	2								
09AA	1075-3515-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	2								
10AA	1075-3507-01	FRAME ﾌﾚｰﾑ	1								
11AA	1161-0125-01	PW BOARD-T SYNCHRONIZING ﾌﾟﾘﾝﾄｷﾊﾞﾝT ﾀｲﾐﾝｸﾞ (PWB-T)	1								
12AA	1076-3109-01	GUIDE ｶﾞｲﾄﾞ	2								
13AA	1075-3518-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
14AA	9384-1900-56	PWB SUPPORT 6.35H ｷﾊﾞﾝｻﾎﾟｰﾄ	5								
15AA	1161-6813-01	HARNESS ﾊｰﾈｽ	1								
16AA	1075-3520-01	LID ﾌﾀ	1								
17AA	1200-2105-05	COLLAR ｶﾗｰ	2								
18AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC26,27)	2								
19AA	1075-3519-02	COVER ｶﾊﾞｰ	1								
20AA	1053-6069-01	GROUND WIRE ｱｰｽｺｰﾄﾞ	1								
21AA	1075-3564-01	HOLDER ﾎﾙﾀﾞｰ	2								
22AA	1075-3513-01	GROUND PLATE ｱｰｽﾊﾞﾝ	2								
23AA	1075-0366-01	RESISTOR ﾃｲｺｳ (R1)	1								
24AA	1139-0420-01	VARISTOR ﾊﾞﾘｽﾀｰ (VS1)	1								
25AA	1075-3557-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1								
26AA	1075-3555-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1								
27AA	1075-7323-01	LABEL M3 ﾗﾍﾞﾙ	1								
28AA	1075-3577-02	KNOB ﾂﾏﾐ	1								
29AA	1075-3505-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1								
30AA	1075-3506-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1								

25 CORONA SECTION チャージ部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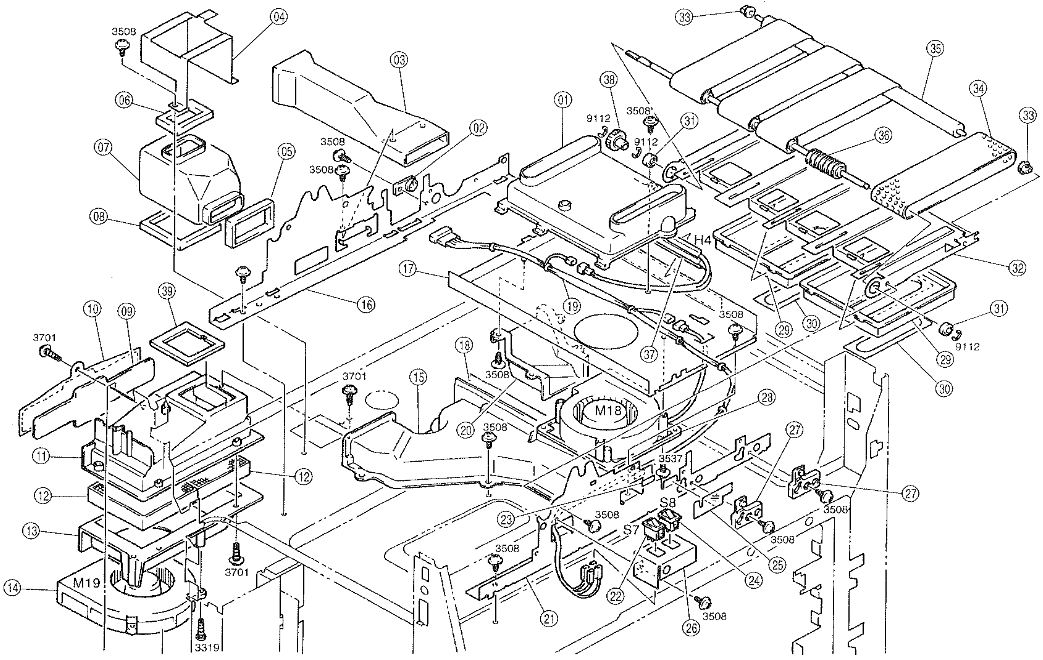
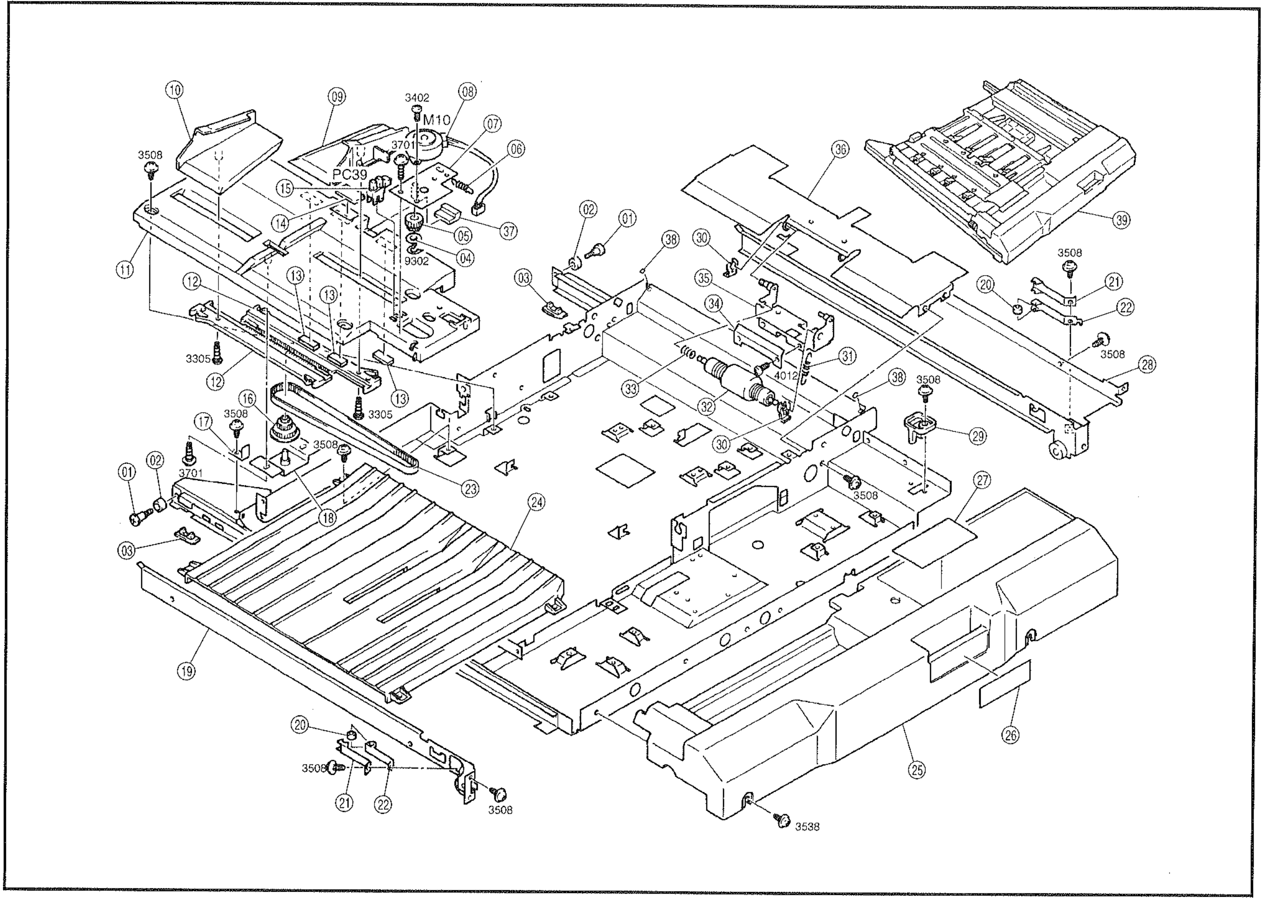
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	9384-1520-31	PWB SUPPORT キバンサポート	4		
02AA	1075-4159-01	POLYESTER FILM ポリエステルフィルム	1		
03AA	1075-4101-03	PLATE プレート	1		
04AA	1075-4155-04	LID フタ	1		
05AA	1075-4102-01	TERMINAL ターミナル	2		
06AA	1075-4152-05	REAR HOLDER ウシロホルダー	1		
07AA	1075-4164-01	POLYESTER FILM ポリエステルフィルム	1		
08AA	1075-4110-01	STOPPER ストッパー	1		
09AA	1075-4486-03	HOLDER ホルダー	1		
10AA	1075-4483-03	BUSHING ジクウケ	1		
11AA	1139-4067-01	GUIDE ガイド	2		
12AA	1139-4068-01	GUIDE ガイド	2		
13AA	1075-4161-02	CONVEYOR SHAFT ハンソウシャフト	1		
14AA	1075-4484-05	HOUSING ハウジング	1		
15AA	9314-1310-31	MOTOR WIRE CLEANING モーター セイソウ (M22)	1		
16AA	1075-4062-01	GEAR 14T ギアー	1		
17AA	1075-4151-06	FRONT HOLDER マエホルダー	1		
18AA	1400-2110-01	TENSION SPRING ヒッパリスプリング	2		
19AA	1075-0772-01	CHARGE WIRE ASSY チャージワイヤーアッセン	2		
20AA	1075-4154-03	LID フタ	1		
21AA	1052-5501-02	POLYESTER FILM ポリエステルフィルム	1		
22AA	1400-1167-05	PRESSURE SPRING アッシュクスプリング	1		
23AA	1075-4158-01	PRESSURE SPRING アッシュクスプリング	4		
24AA	1075-4157-01	HOLDER ホルダー	2		
25AA	1075-4106-13	BRACKET トリツケバン	1		
26AA	1075-4115-01	TENSION SPRING ヒッパリスプリング	1		
27AA	1075-4166-12	ACTUATOR アクチェーター	1		
28AA	9335-1310-31	PHOTO INTERRUPTER CLEANER HOME フォトインタラプター テイイチ (PC49)	1		
29AA	1065-6803-01	HARNESS ハーネス	1		
30AA	1129-7303-01	LABEL HIGH VOLTAGE ラベル コウアツチュウイ	1		
31AA	1075-4103-01	TERMINAL ターミナル	2		
32AA	1075-4156-04	HOLDER ホルダー	1		
33AA	1400-1124-08	PRESSURE SPRING アッシュクスプリング	1		
34AA	1075-4104-01	TERMINAL ターミナル	1		
35AA	1075-4411-02	GUIDE ガイド	1		
36AA	1044-6054-02	GROUND WIRE アースコード	1		
37AA	1075-4414-01	PLATE プレート	2		
38AA	1075-4462-01	SHAFT シャフト	4		
39AA	1075-4415-01	SET PLATE オサエバン	1		
40AA	1075-4412-02	BASE PLATE ベースプレート	1		
41AA	1075-4413-01	PLATE プレート	1		
42AA	1075-4108-02	HOLDER ホルダー	1		
43AA	1075-4471-02	BRACKET トリツケバン	1		
44AA	1075-4467-02	POLYESTER FILM ポリエステルフィルム	1		
45AA	1075-4111-01	STOPPER ストッパー	1		
46AA	1161-0120-01	PW BOARD-O MOTOR DRIVE プリントキバンO クドウ (PWB-O)	1		
47AA	1161-6818-01	HARNESS ハーネス	1		
48AA	1075-4473-01	SPONGE スポンジ	2		
49AA	1136-2131-03	STOPPER ストッパー	1		
50AA	1075-0337-01	TRANS/SEP CORONA テンプンチャージユニット	1		

26 VACUUM SECTION サクション部



INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-3653-01	DUCT ダクト	1		
02AA	1075-3565-01	HOLDER ホルダー	1		
03AA	1075-3654-02	DUCT ダクト	1		
04AA	1075-2111-01	BRACKET トリツケバン	1		
05AA	1075-2163-01	SPONGE スポンジ	1		
06AA	1075-2162-01	SPONGE スポンジ	1		
07AA	1075-2152-01	DUCT ダクト	1		
08AA	1075-2161-01	SPONGE スポンジ	1		
09AA	1075-2164-01	SPONGE スポンジ	1		
10AA	1075-2113-01	PLATE プレート	1		
11AA	1075-2153-01	DUCT ダクト	1		
12AA	1075-2160-01	OZONE FILTER オゾンフィルター	2		
13AA	1075-2154-01	DUCT ダクト	1		
14AA	9313-1410-21	FAN MOTOR ファンモーター VENT FAN ハイキファン (M19)	1		
15AA	1075-4160-01	DUCT ダクト	1		
16AA	1075-2203-01	REAR FRAME ウシロフレーム	1		
17AA	1075-3602-02	BASE PLATE ベースプレート	1		
18AA	1075-4191-01	POLYESTER FILM ポリエステルフィルム	1		
19AA	1161-6814-01	HARNESS ハーネス	1		
20AA	1075-3657-01	DUCT ダクト	1		
21AA	1075-2202-02	FRONT FRAME マエフレーム	1		
22AA	9332-5310-21	SWITCH スイッチ DRUM DEHUM ドラムジョシツ (S7)	1		
23AA	1129-7303-01	LABEL HIGH VOLTAGE ラベル コウアツチュウイ	1		
*24AA	9332-5310-21	SWITCH スイッチ PAPER DEHUM ジョシツ (S8)	1	0710	
*24BA	9332-5310-21	SWITCH スイッチ OPTION オプション (S8)	1	2720	
25AA	1075-4468-01	POLYESTER FILM ポリエステルフィルム	1		
26AA	1075-2423-02	BRACKET トリツケバン	1		
27AA	1075-3567-01	GUIDE ガイド	2		
28AA	9313-1310-61	FAN MOTOR ファンモーター SUCTION FAN サクションファン (M18)	1		
29AA	1075-3652-01	DUCT ダクト	2		
30AA	1075-3658-01	POLYESTER FILM ポリエステルフィルム	2		
31AA	1300-4342-03	BALL BEARING ボールベアリング	2		
32AA	1075-3601-01	FRAME フレーム	1		
33AA	1200-3205-02	BUSHING ジクウケ	2		
34AA	1075-3651-01	TRANSPORT BELT サクションベルト	1 set		
35AA	1075-0164-01	ROLLER ローラー	1		
36AA	1075-3655-01	ROLLER ローラー	1		
37AA	9352-6310-31	HEATER ヒーター DRUM DEHUM ドラムジョシツ (H4)	1		
38AA	1161-2584-01	GEAR 22T ギアー	1		
39AA	1075-2168-01	CUSHION クッション	1		

27 DUPLEX UNIT I 両面ユニット部 I



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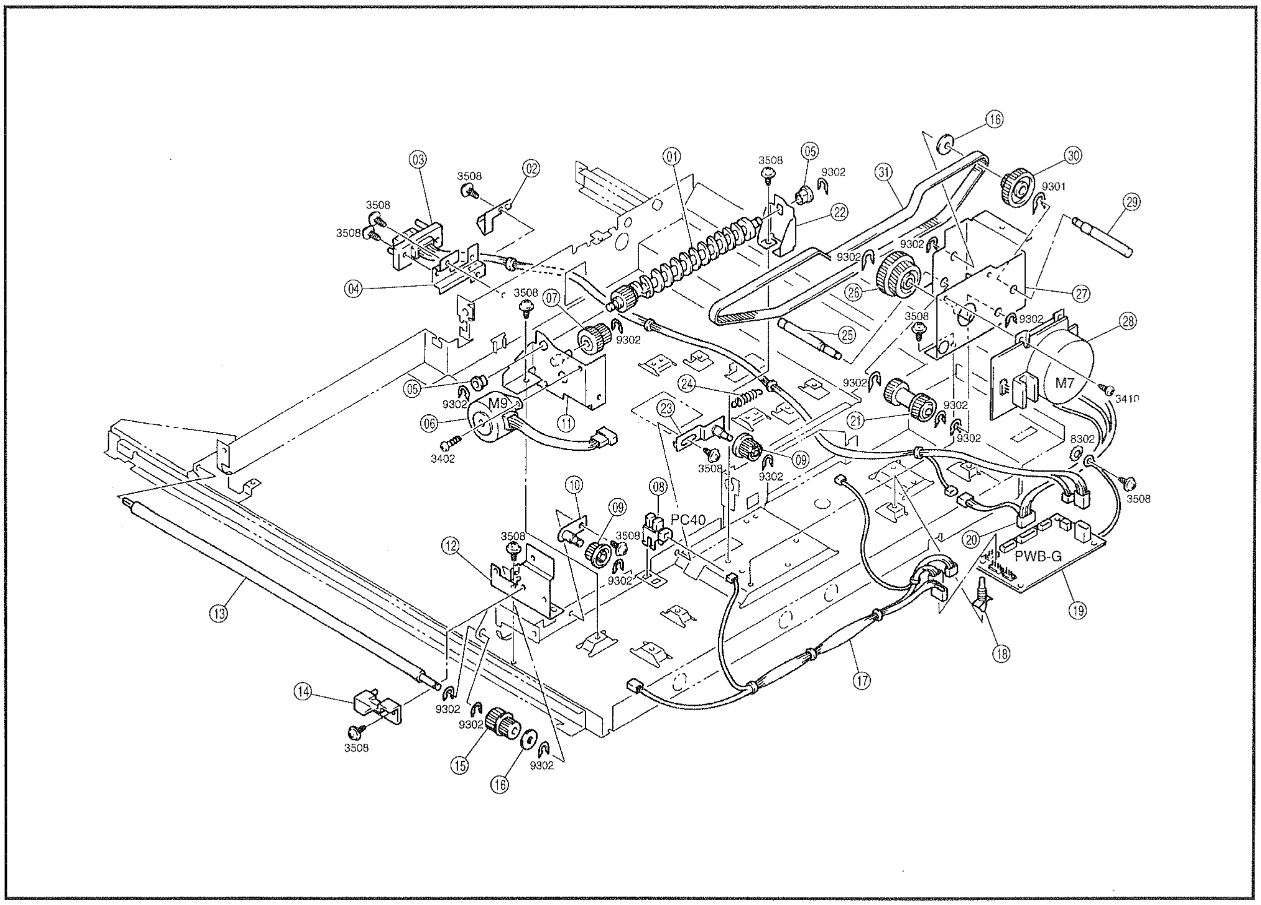
01AA	1273-3003-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
02AA	1273-3002-01	ROLL ﾛｰﾙ	2		
03AA	1273-3055-01	SLIDER ｽﾗｲﾀﾞｰ	2		
04AA	1200-1542-01	WASHER ﾜｯｼｬｰ	1		
05AA	1075-3969-01	PLY GEAR 20/32T ﾌﾟｰﾘｰｷﾞｱｰ	1		
06AA	1075-3970-02	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
07AA	1075-0264-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
08AA	9314-1310-71	MOTOR DUO EDGE ﾓｰﾀｰ ﾖｺｷｾｲ (M10)	1		
09AA	1075-3971-01	GUIDE ｶﾞｲﾄﾞ	1		
10AA	1075-3972-02	GUIDE ｶﾞｲﾄﾞ	1		
11AA	1075-3965-13	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
12AA	1075-3992-02	RACK GEAR ﾗｯｸｷﾞｱｰ	2		
13AA	4425-3810-01	SPONGE ｽﾎﾟﾝｼﾞ	3		
14AA	1273-3052-01	CORK ｺﾙｸ	1		
15AA	9335-1310-31	PHOTO INTERRUPTER GUIDE HOME ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ﾃｲｲﾁ (PC39)	1		
16AA	1075-3968-01	PLY GEAR 40/16T ﾌﾟｰﾘｰｷﾞｱｰ	1		
17AA	1075-3913-01	PLATE ﾌﾟﾚｰﾄ	1		
18AA	1075-0263-02	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
19AA	1075-2210-01	RAIL ﾚｰﾙ	1		
20AA	1273-2017-01	ROLL ﾛｰﾙ	2		
21AA	1273-2016-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
22AA	1273-2014-01	HOLDER ﾎﾙﾀﾞｰ	2		
23AA	1075-3975-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1		
24AA	1075-3901-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
25AA	1075-1070-01	COVER ｶﾊﾞｰ	1		
26AA	1161-7326-01	LABEL D1 ﾗﾍﾞﾙ	1		
27AA	1161-7306-01	LABEL JAM REMOVAL ﾗﾍﾞﾙｶﾐﾂﾞﾏﾘｼｮﾘ	1		
28AA	1075-2215-02	RAIL ﾚｰﾙ	1		
29AA	1075-3980-01	HOLDER ﾎﾙﾀﾞｰ	1		
30AA	1033-4402-01	STOPPER RING ﾄﾒﾘﾝｸﾞ	2		
31AA	1075-3985-02	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
32AA	1075-0162-02	SEPARATOR ROLLER ｻﾊﾞｷﾛｰﾗｰ	1		
33AA	1400-1155-15	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
34AA	1075-3937-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
35AA	1075-3930-01	HOLDER ﾎﾙﾀﾞｰ	1		
36AA	1075-3931-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
37AA	1075-3996-01	CUSHION ｸｯｼｮﾝ	1		
38AA	1162-3930-01	CUSHION ｸｯｼｮﾝ	2		
39AA	1161-0392-01	DUPLEX UNIT ﾘｮｳﾒﾝﾕﾆｯﾄ	1		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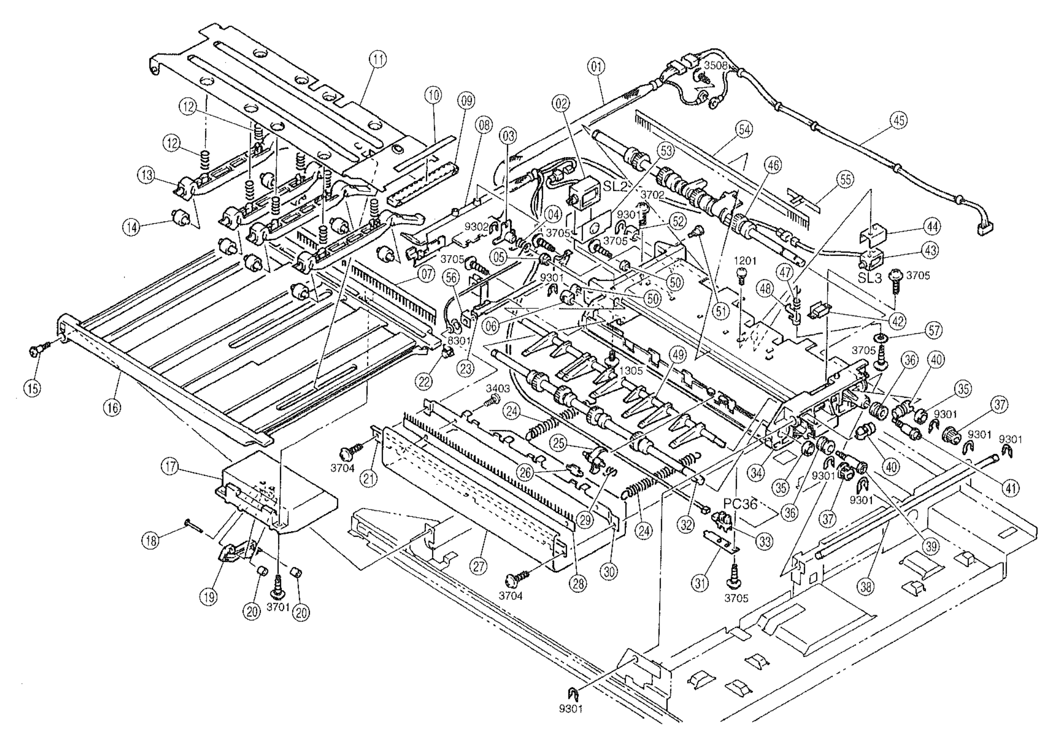
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS	INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	4425-3817-02	SPIRAL ROLLER ﾛｰﾗｰ	1								
02AA	1075-3995-01	GROUND PLATE ｱｰｽﾊﾞﾝ	1								
03AA	1075-6835-03	HARNESS ﾊｰﾈｽ	1								
04AA	1075-3927-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
05AA	1274-2611-01	BUSHING ｼﾞｸｳｹ	2								
06AA	9314-1611-01	MOTOR DUPLEX GATE ﾓｰﾀｰ ﾘｮｳﾒﾝｹﾞｰﾄ (M9)	1								
07AA	4425-3821-01	GEAR 17/40T ｷﾞｱｰ	1								
08AA	9335-1310-31	PHOTO INTERRUPTER DUP GATE HOME ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｼｭｳﾉｳ (PC40)	1								
09AA	4425-3869-01	PULLEY 16T ﾌﾟｰﾘｰ	2								
10AA	1075-0269-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1								
11AA	4425-0202-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
12AA	1161-3938-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
13AA	1161-3891-01	SHAFT ｼｬﾌﾄ	1								
14AA	1075-3993-02	PAWL ﾂﾒ	1								
15AA	1075-3955-01	PLY GEAR 16/16T ﾌﾟｰﾘｰｷﾞｱｰ	1								
16AA	1200-1646-03	WASHER ﾜｯｼｬｰ	2								
17AA	1075-6889-01	HARNESS ﾊｰﾈｽ	1								
18AA	9384-1900-57	PWB SUPPORT 9.53H ｷﾊﾞﾝｻﾎﾟｰﾄ	4								
19AA	1161-0107-01	PW BOARD-G DUPLEX S/P ﾌﾟﾘﾝﾄｷﾊﾞﾝG ﾘｮｳﾒﾝ (PWB-G)	1								
20AA	1075-6836-02	HARNESS ﾊｰﾈｽ	1								
21AA	1161-3885-01	GEAR 18/19T ｷﾞｱｰ	1								
22AA	4425-3813-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
23AA	4425-0203-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1								
24AA	4425-3884-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1								
25AA	1161-3888-01	SHAFT ｼｬﾌﾄ	1								
26AA	1161-3886-01	GEAR 55/56T ｷﾞｱｰ	1								
27AA	1161-0268-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1								
28AA	9314-2310-11	PWB-MOTOR DUPLEX DRIVE ﾓｰﾀｰﾄﾞﾗｲﾌﾞﾕﾆｯﾄ ﾘｮｳﾒﾝｸﾄﾞｳ (M7)	1								
29AA	1075-3887-01	SHAFT ｼｬﾌﾄ	1								
30AA	1161-3956-01	PLY GEAR 16/30T ﾌﾟｰﾘｰｷﾞｱｰ	1								
31AA	4425-3904-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1								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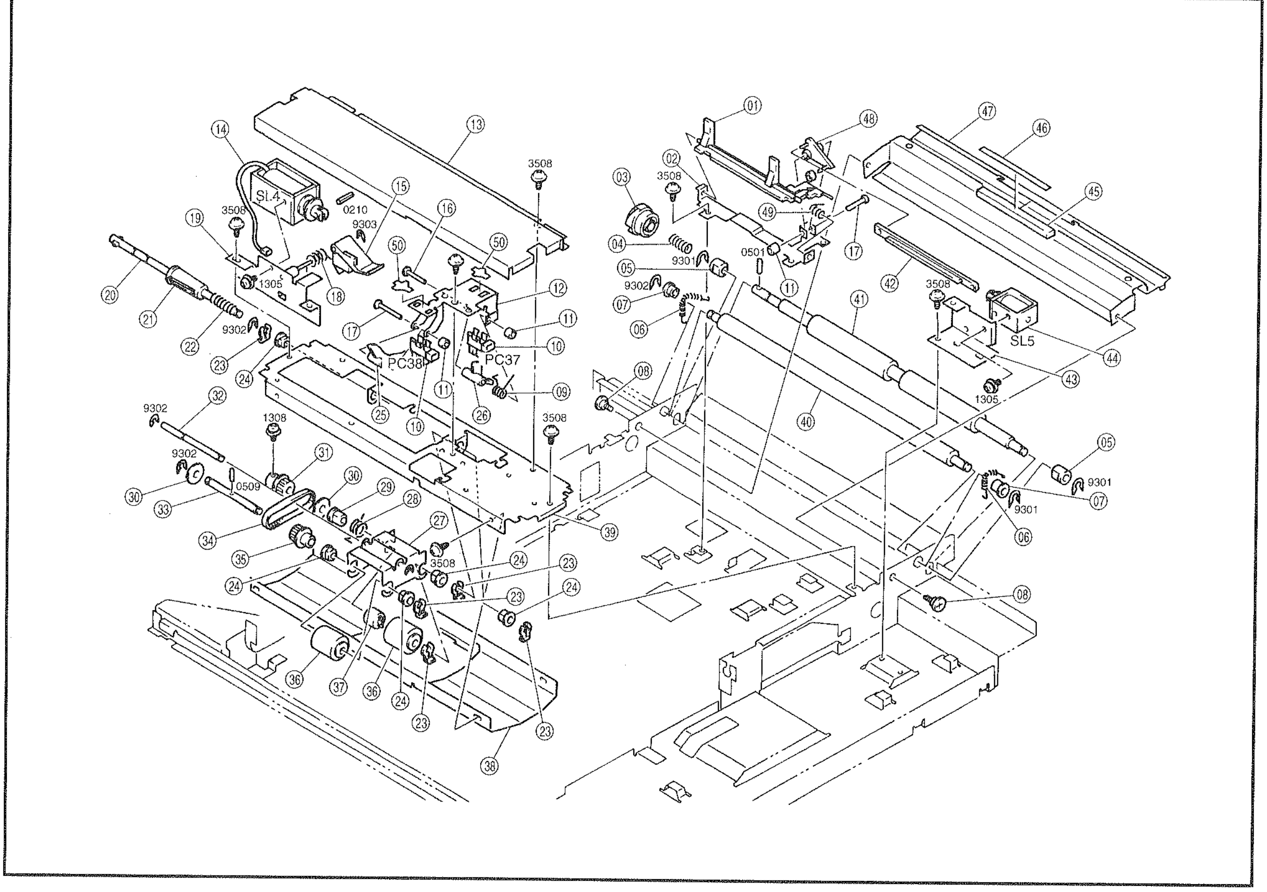
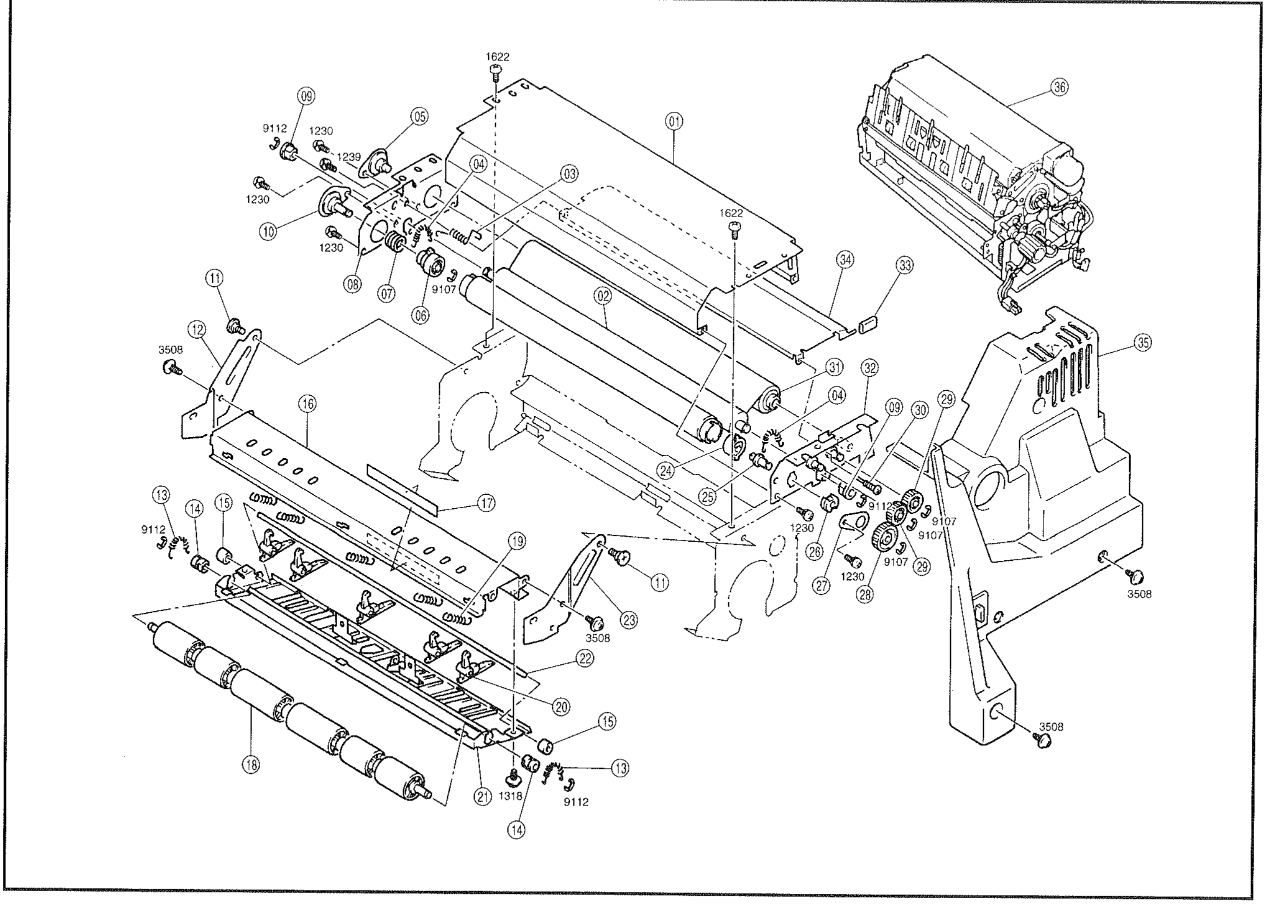
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-6837-04	HARNESS ハーネス	1		
02AA	9321-2621-11	SOLENOID ソレノイド GATE SW ゲートキリカエ (SL2)	1		
03AA	4425-3883-01	LEVER レバー	1		
04AA	4425-3886-12	TORSION SPRING ネジリスプリング	1		
05AA	1200-3221-12	BUSHING ジクウケ	1		
06AA	1274-3603-01	BUSHING ジクウケ	1		
07AA	4425-3850-01	NEUTRALIZING BRUSH ESクリーナー	1		
08AA	1075-3994-01	GUIDE ガイド	1		
09AA	1076-3906-01	COVER カバー	1		
10AA	1161-7327-01	LABEL D2 ラベル	1		
11AA	4425-3805-01	GUIDE PLATE ガイドバン	1		
12AA	4425-3995-01	PRESSURE SPRING アッシュクスプリング	8		
13AA	4425-3893-12	HOLDER ホルダー	4		
14AA	1038-4701-01	ROLL ロール	8		
15AA	1100-1332-14	SHOULDER SCREW ダンネジ	1		
16AA	1075-3903-01	GUIDE PLATE ガイドバン	1		
17AA	4425-3994-01	GUIDE ガイド	1		
18AA	1200-5211-08	PIN ピン	1		
19AA	4425-3899-01	LEVER レバー	1		
20AA	1200-2105-07	COLLAR カラー	2		
21AA	4425-3812-01	BRACKET トリツケバン	1		
22AA	1075-3998-01	GROUND PLATE アースバン	1		
23AA	4425-3999-12	GROUND PLATE アースバン	1		
24AA	4425-3892-01	TENSION SPRING ヒッパリスプリング	2		
25AA	4425-3873-01	ACTUATOR アクチェーター	1		
26AA	4425-3997-02	STOPPER ストッパー	1		
27AA	4425-3849-03	POLYESTER FILM ポリエステルフィルム	1		
28AA	1051-5248-01	NEUTRALIZING BRUSH ESクリーナー	1		
29AA	4425-3887-01	TORSION SPRING ネジリスプリング	1		
30AA	1075-3914-02	GUIDE PLATE ガイドバン	1		
31AA	4425-3996-01	BRACKET トリツケバン	1		
32AA	4425-3814-02	ROLLER ローラー	1		
33AA	9335-1310-31	PHOTO INTERRUPTER フォトインタラプター DUP ENTRY シュウノウ (PC36)	1		
34AA	1075-3902-03	HOLDER ホルダー	1		
35AA	1273-3516-01	BALL BEARING ボールベアリング	2		
36AA	1273-2539-01	PULLEY プーリー	2		
37AA	4425-3870-01	PULLEY 16T プーリー	2		
38AA	4425-3816-01	SHAFT シャフト	1		
39AA	4425-3913-02	SHOULDER SCREW ダンネジ	1		
40AA	4425-3845-01	BUSH ブッシュ	2		
41AA	4425-3912-02	SHOULDER SCREW ダンネジ	1		
42AA	1500-2640-07	MAGNET CATCH マグネットキャッチ	1		
43AA	9321-2210-21	SOLENOID ソレノイド PAPER FINGER コウタンオサエ (SL3)	1		
44AA	4425-3843-01	BRACKET トリツケバン	1		
45AA	1075-6883-01	HARNESS ハーネス	1		
46AA	1075-0165-01	ROLLER ローラー	1		
47AA	4425-3838-01	TORSION SPRING ネジリスプリング	1		
48AA	4425-3882-01	LEVER レバー	1		
49AA	4425-3815-01	LEVER SHAFT レバーシャフト	1		
50AA	1273-3002-01	ROLL ロール	2		
51AA	1100-1340-09	SHOULDER SCREW ダンネジ	1		
52AA	1200-3134-16	BUSHING ジクウケ	1		
53AA	4425-3844-02	BRACKET トリツケバン	1		
54AA	4425-3848-01	NEUTRALIZING BRUSH ESクリーナー	1		
55AA	4425-3837-01	GROUND PLATE アースバン	1		
56AA	1075-3958-01	GROUND PLATE アースバン	1		
57AA	1200-1302-01	WASHER ワッシャー	1		



INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-3987-01	LEVER ﾚﾊﾞｰ	1		
02AA	1075-3934-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
03AA	1075-3978-02	PAWL ﾂﾒ	1		
04AA	1400-1163-08	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
05AA	1200-3134-16	BUSHING ｼﾞｸｳｹ	2		
06AA	1400-2502-11	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
07AA	1274-3604-01	BUSHING ｼﾞｸｳｹ	2		
08AA	1100-1341-07	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
09AA	1075-3977-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
10AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC37,38)	2		
11AA	1200-2105-07	COLLAR ｶﾗｰ	3		
12AA	1075-3933-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
13AA	1075-3936-01	COVER ｶﾊﾞｰ	1		
14AA	9321-2310-91	SOLENOID DUP PICK-UP ｿﾚﾉｲﾄﾞ ｻｲｷｭｳｼ (SL4)	1		
15AA	1075-3981-01	LEVER ﾚﾊﾞｰ	1		
16AA	1200-5212-04	PIN ﾋﾟﾝ	1		
17AA	1200-5211-08	PIN ﾋﾟﾝ	2		
18AA	1075-3982-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
19AA	1075-0265-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
20AA	1075-3052-02	SHAFT ｼｬﾌﾄ	1		
21AA	1070-3071-01	JOINT ｼﾞｮｲﾝﾄ	1		
22AA	1070-3072-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
23AA	1033-4402-01	STOPPER RING ﾄﾒﾘﾝｸﾞ	5		
24AA	1274-2611-01	BUSHING ｼﾞｸｳｹ	5		
25AA	1075-3986-01	LEVER ﾚﾊﾞｰ	1		
26AA	1075-3984-01	LEVER ﾚﾊﾞｰ	1		
27AA	1075-3922-01	HOLDER ﾎﾙﾀﾞｰ	1		
28AA	1075-3991-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
29AA	1200-3225-11	BUSHING ｼﾞｸｳｹ	1		
30AA	1200-1646-03	WASHER ﾜｯｼｬｰ	2		
31AA	1075-3054-01	PULLEY 20T ﾌﾟｰﾘｰ	1		
32AA	1075-3979-01	SHAFT ｼｬﾌﾄ	1		
33AA	1075-3053-02	SHAFT ｼｬﾌﾄ	1		
34AA	1075-3056-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1		
35AA	1075-3055-01	PULLEY 22T ﾌﾟｰﾘｰ	1		
36AA	1075-3051-01	ROLLER ﾛｰﾗｰ	2		
37AA	1259-4404-01	COLLAR ｶﾗｰ	1		
38AA	1075-3924-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
39AA	1075-3923-02	FRAME ﾌﾚｰﾑ	1		
40AA	1075-3966-01	ROLLER ﾛｰﾗｰ	1		
41AA	1075-3967-01	ROLLER ﾛｰﾗｰ	1		
42AA	1075-3989-01	ARM ｱｰﾑ	1		
43AA	1075-3935-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
44AA	9321-2621-11	SOLENOID LEADING EDGE ｿﾚﾉｲﾄﾞ ｾﾝﾀﾝｷｾｲ (SL5)	1		
45AA	1076-3906-01	COVER ｶﾊﾞｰ	1		
46AA	1161-7328-01	LABEL D3 ﾗﾍﾞﾙ	1		
47AA	1075-3932-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
48AA	1075-3988-01	LEVER ﾚﾊﾞｰ	1		
49AA	1075-3990-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
50AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ	2		

31 FUSING UNIT I 定着器 I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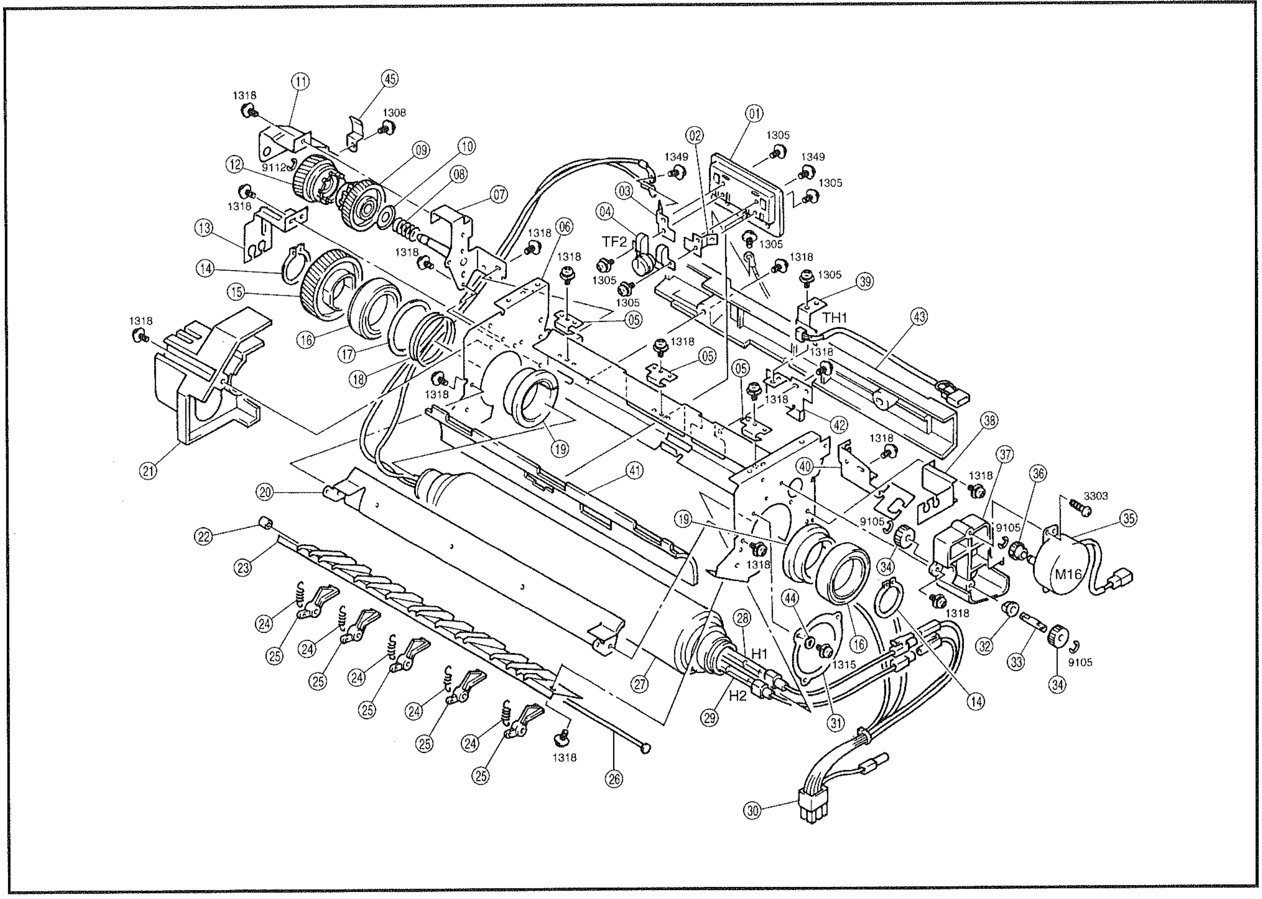
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-5814-01	COVER ｶﾊﾞｰ	1		
02AA	1075-5751-01	ROLLER ﾛｰﾗｰ	1		
03AA	1075-5752-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
04AA	1075-5795-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
05AA	1031-0208-02	BUSHING ｼﾞｸｳｹ	1		
06AA	1076-5902-01	ARBOR ﾄﾞﾗﾑ	1		
07AA	1075-5787-01	CLUTCH SPRING ｸﾗｯﾁｽﾌﾟﾘﾝｸﾞ	1		
08AA	1075-5707-01	FRAME ﾌﾚｰﾑ	1		
09AA	1075-5779-01	BUSHING ｼﾞｸｳｹ	2		
10AA	1031-0207-01	BUSHING ｼﾞｸｳｹ	1		
11AA	1100-1340-05	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
12AA	1075-5714-02	PLATE ﾌﾟﾚｰﾄ	1		
13AA	1400-2521-07	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
14AA	1200-3134-15	BUSHING ｼﾞｸｳｹ	2		
15AA	1200-2125-01	RETAINING RING ｺﾞﾑﾌﾞｯｼｭ	2		
16AA	1075-5702-03	FRAME ﾌﾚｰﾑ	1		
*17AA	1075-7369-01	LABEL ﾗﾍﾞﾙ ｺｳｵﾝﾁｭｳｲ	1	1000	
*17BA	1075-7370-01	LABEL CAUTION-HOT ﾗﾍﾞﾙ	1	2000	
18AA	1075-5811-02	ROLLER ﾛｰﾗｰ	1		
19AA	1075-5798-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	5		
20AA	1074-5701-01	SEPARATOR ﾌﾞﾝﾘﾂﾞﾒ	5		
21AA	1075-5719-05	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
22AA	1200-5116-06	SHAFT ｼｬﾌﾄ	1		
23AA	1075-5713-02	PLATE ﾌﾟﾚｰﾄ	1		
24AA	1075-5764-02	BUSHING ｼﾞｸｳｹ	1		
25AA	1075-5762-01	SHAFT ｼｬﾌﾄ	1		
26AA	1075-5754-01	BUSHING ｼﾞｸｳｹ	1		
27AA	1075-5802-01	PLATE ﾌﾟﾚｰﾄ	1		
28AA	1075-5781-01	GEAR 32T ｷﾞｱｰ	1		
29AA	1075-5776-01	GEAR 20T ｷﾞｱｰ	2		
30AA	1100-1322-04	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
31AA	1145-5801-01	WEB ROLLER ｳｪﾌﾞﾛｰﾗｰ	1		
32AA	1075-0251-01	FRAME ﾌﾚｰﾑ	1		
33AA	1076-5905-01	CAP ｷｬｯﾌﾟ	1		
34AA	1075-5727-01	SET PLATE ｵｻｴﾊﾞﾝ	1		
35AA	1075-5753-03	COVER ｶﾊﾞｰ	1		
*36AA	1161-0316-01	FUSING UNIT ﾃｲﾁｬｸﾕﾆｯﾄ	1	0600	
*36BA	1161-0317-01	FUSING UNIT ﾃｲﾁｬｸﾕﾆｯﾄ	1	2505	
*36CA	1161-0318-01	FUSING UNIT ﾃｲﾁｬｸﾕﾆｯﾄ	1	2612	

32 FUSING UNIT II 定 着 器 II



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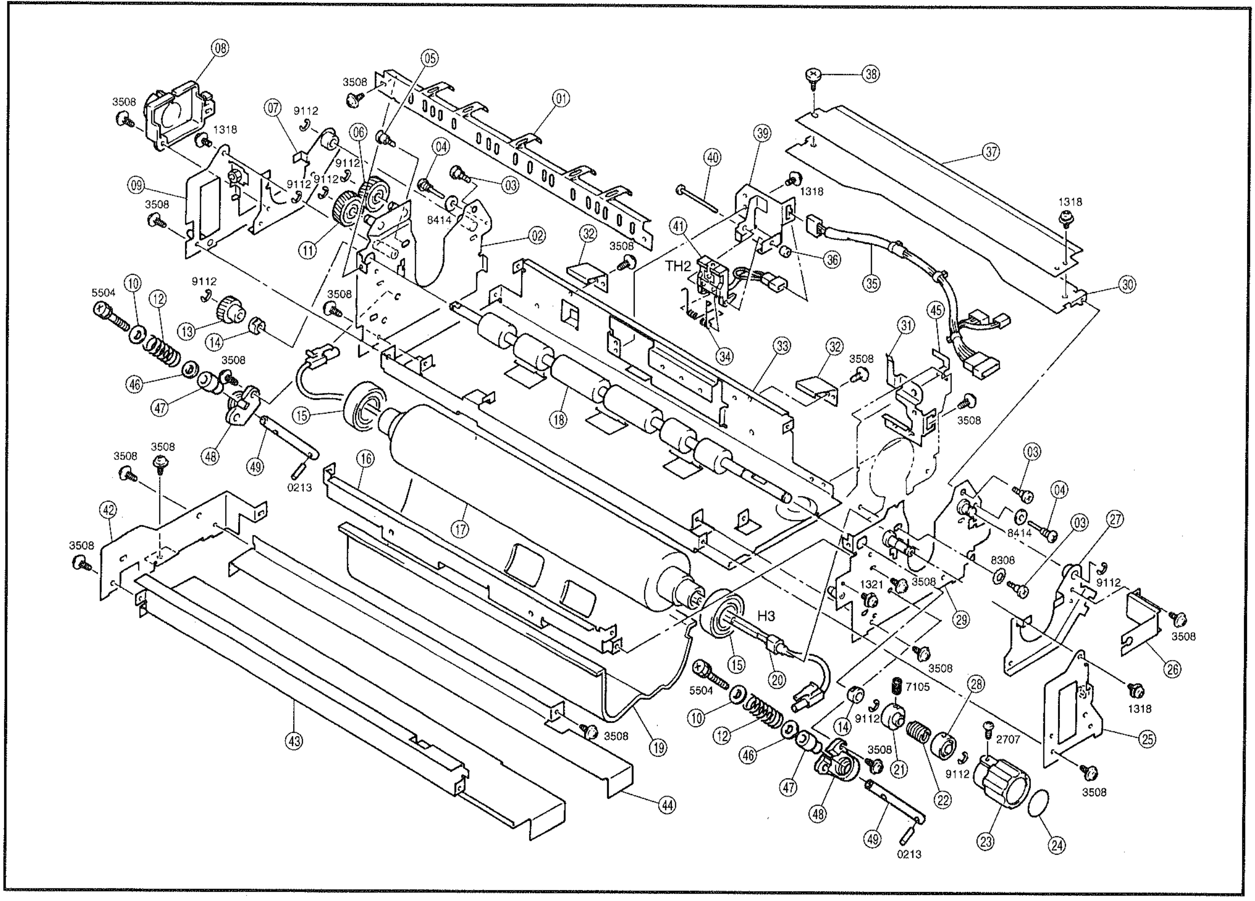
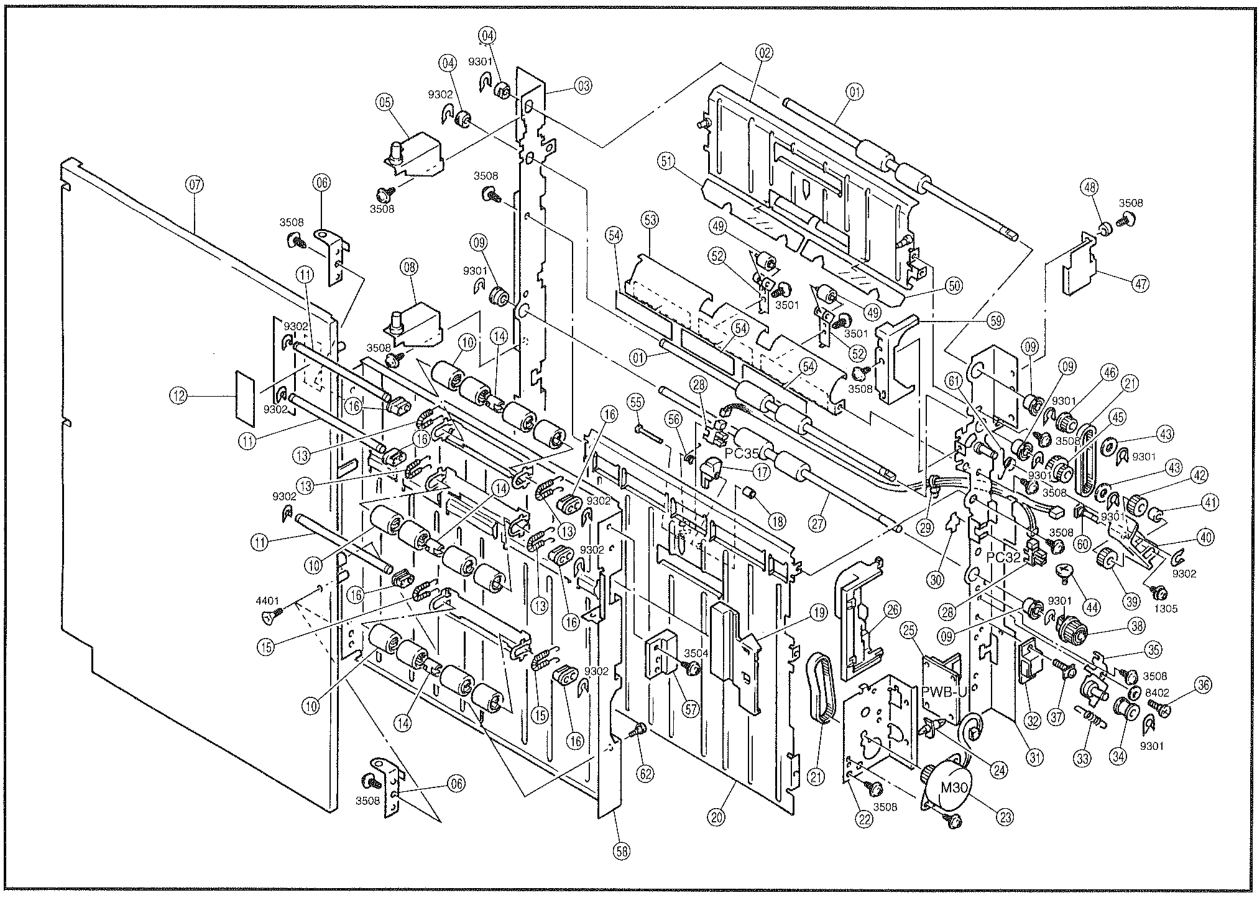
INDEX	PART NO.	PART NAME		QTY	AREA	REMARKS
01AA	1075-5728-02	MOUNT ﾄﾘﾂｹﾀﾞｲ		1		
02AA	1075-5723-01	TERMINAL ﾀｰﾐﾅﾙ		1		
03AA	1075-5725-01	TERMINAL ﾀｰﾐﾅﾙ		1		
04AA	9334-1310-31	THERMAL FUSE ｵﾝﾄﾞﾋｭｰｽﾞ	FUSING ROLLER ﾃｲﾁｬｸｷ (TF2)	1		
05AA	1031-3722-01	PLATE ﾌﾟﾚｰﾄ		3		
06AA	1075-5712-05	FRAME ﾌﾚｰﾑ		1		
07AA	1161-0252-01	AXLE PLATE ｼﾞｸﾊﾞﾝ		1		
08AA	1400-1174-02	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ		1		
09AA	1161-5855-01	GEAR 36T ｷﾞｱｰ		1		
10AA	1075-5818-01	WASHER ﾜｯｼｬｰ		1		
11AA	1161-5720-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
12AA	1161-5766-01	GEAR 39T ｷﾞｱｰ		1		
13AA	1075-5704-01	SUPPORT PLATE ｼｼﾞﾊﾞﾝ		1		
14AA	1075-5760-01	C-RING Cﾘﾝｸﾞ		2		
15AA	1161-5773-01	GEAR 56T ｷﾞｱｰ		1		
16AA	1075-5771-01	BALL BEARING ﾎﾞｰﾙﾍﾞｱﾘﾝｸﾞ		2		
17AA	1075-5808-01	WASHER ﾜｯｼｬｰ		1		
18AA	1075-5856-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ		1		
19AA	1075-5772-01	BUSHING ｼﾞｸｳｹ		2		
20AA	1075-5758-01	COVER ｶﾊﾞｰ		1		
21AA	1075-5786-03	COVER ｶﾊﾞｰ		1		
22AA	1200-2125-01	RETAINING RING ｺﾞﾑﾌﾞｯｼｭ		1		
23AA	1075-5701-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ		1		
24AA	1074-5778-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ		5		
25AA	1075-5757-01	SEPARATOR ﾌﾞﾝﾘﾂﾞﾒ		5		
26AA	1200-5235-12	SHAFT ｼｬﾌﾄ		1		
27AA	1075-5768-01	FUSING ROLLER-UPR ｳｴﾃｲﾁｬｸﾛｰﾗｰ		1		
*28AA	9352-2611-31	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	FUSING MAIN ﾃｲﾁｬｸ ﾒｲﾝ (H1)	1	0600	
*28BA	9352-2611-41	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	FUSING MAIN ﾃｲﾁｬｸ ﾒｲﾝ (H1)	1	2505	
*28CA	9352-2611-51	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	FUSING MAIN ﾃｲﾁｬｸ ﾒｲﾝ (H1)	1	2612	
*29AA	9352-2312-02	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	FUSING SUB ﾃｲﾁｬｸ ｻﾌﾞ (H2)	1	0600	
*29BA	9352-2312-12	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	FUSING SUB ﾃｲﾁｬｸ ｻﾌﾞ (H2)	1	2505	
*29CA	9352-2312-42	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	FUSING SUB ﾃｲﾁｬｸ ｻﾌﾞ (H2)	1	2612	
30AA	1075-6807-04	HARNESS ﾊｰﾈｽ		1		
31AA	1075-5810-01	SPACER ｽﾍﾟｰｻｰ		1		
32AA	1075-5854-01	BUSHING ｼﾞｸｳｹ		1		
33AA	1075-5853-01	SHAFT ｼｬﾌﾄ		1		
34AA	1075-5800-01	GEAR 16T ｷﾞｱｰ		2		
35AA	9311-3310-21	MOTOR ﾓｰﾀｰ	WEB DRIVE ｳｪﾌﾞﾏｷﾄﾘ (M16)	1		
36AA	1075-5796-01	GEAR 12T ｷﾞｱｰ		1		
37AA	1075-5756-01	HOLDER ﾎﾙﾀﾞｰ		1		
38AA	1075-5703-01	SUPPORT PLATE ｼｼﾞﾊﾞﾝ		1		
39AA	9372-2310-52	THERMISTOR ｻｰﾐｽﾀｰ	UPPER FUSING ﾃｲﾁｬｸｳｴ (TH1)	1		
40AA	1075-5806-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
41AA	1075-5755-02	COVER ｶﾊﾞｰ		1		
42AA	1075-5726-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
43AA	1075-5785-03	COVER ｶﾊﾞｰ		1		
44AA	1075-5812-01	WASHER ﾜｯｼｬｰ		3		
45AA	0725-3641-01	WIRING CLAMP ｺｰﾄﾞｵｻｴ		1		

33 FUSING UNIT III 定着器 III PARTS MANUAL



INDEX	PART NO.	PART NAME		QTY	AREA	REMARKS
01AA	1075-5722-03	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ		1		
02AA	1161-0278-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
03AA	1100-1341-04	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ		3		
04AA	1075-5789-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ		2		
05AA	1100-1331-07	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ		1		
06AA	1161-5876-01	GEAR 25T ｷﾞｱｰ		1		
07AA	1075-0255-01	HOLD PLATE ﾎｼﾞﾊﾞﾝ		1		
08AA	1075-5710-01	HOLDER ﾎﾙﾀﾞｰ		1		
09AA	1075-0279-01	PLATE ﾌﾟﾚｰﾄ		1		
10AA	1200-1542-02	WASHER ﾜｯｼｬｰ		2		
11AA	1161-5759-01	GEAR 25T ｷﾞｱｰ		1		
12AA	1400-1269-12	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ		2		
13AA	1161-5877-01	GEAR 18T ｷﾞｱｰ		1		
14AA	1079-5530-01	BUSHING ｼﾞｸｳｹ		2		
15AA	1300-4394-26	BALL BEARING ﾎﾞｰﾙﾍﾞｱﾘﾝｸﾞ		2		
16AA	1031-3736-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ		1		
17AA	1129-2021-01	FUSING ROLLER-LWR ｼﾀﾃｲﾁｬｸﾛｰﾗｰ		1		
18AA	1075-5784-05	ROLLER ﾛｰﾗｰ		1		
19AA	1075-5761-02	COVER ｶﾊﾞｰ		1		
*20AA	9352-2611-61	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	LOWER FUSING ｼﾀ ﾃｲﾁｬｸ (H3)	1	0600	
*20BA	9352-2611-71	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	LOWER FUSING ｼﾀ ﾃｲﾁｬｸ (H3)	1	2505	
*20CA	9352-2611-81	TUBE LAMP ﾁｭｰﾌﾞﾗﾝﾌﾟ	LOWER FUSING ｼﾀ ﾃｲﾁｬｸ (H3)	1	2612	
21AA	1075-5767-01	ARBOR ﾄﾞﾗﾑ		1		
22AA	1075-5859-02	CLUTCH SPRING ｸﾗｯﾁｽﾌﾟﾘﾝｸﾞ		1		
23AA	1140-3802-01	KNOB ﾂﾏﾐ		1		
24AA	1075-7321-01	LABEL M1 ﾗﾍﾞﾙ		1		
25AA	1075-5744-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
26AA	1031-3717-01	HOLDER ﾎﾙﾀﾞｰ		1		
27AA	1075-0254-01	HOLD PLATE ﾎｼﾞﾊﾞﾝ		1		
28AA	1075-5769-01	ARBOR ﾄﾞﾗﾑ		1		
29AA	1075-0277-04	FRONT FRAME ﾏｴﾌﾚｰﾑ		1		
30AA	1075-5708-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
31AA	1075-5805-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
32AA	1075-5717-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ		2		
33AA	1075-5743-03	BASE FRAME ﾍﾞｰｽﾌﾚｰﾑ		1		
34AA	1075-5858-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ		1		
35AA	1075-6817-02	HARNESS ﾊｰﾈｽ		1		
36AA	1200-2105-07	COLLAR ｶﾗｰ		1		
37AA	1075-5809-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ		1		
38AA	1100-1340-14	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ		1		
39AA	1075-5804-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
40AA	1200-5213-01	PIN ﾋﾟﾝ		1		
41AA	9372-2410-21	THERMISTOR ｻｰﾐｽﾀｰ	LOWER FUSING ﾃｲﾁｬｸｼﾀ (TH2)	1		
42AA	1075-5730-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
43AA	1075-2212-01	GUIDE RAIL ｶﾞｲﾄﾞﾚｰﾙ		1		
44AA	1075-2219-01	GUIDE RAIL ｶﾞｲﾄﾞﾚｰﾙ		1		
45AA	1075-5863-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ		1		
46AA	1200-1562-02	WASHER ﾜｯｼｬｰ		2		
47AA	1129-5002-01	BUSHING ｼﾞｸｳｹ		2		
48AA	1129-5003-01	HOLDER ﾎﾙﾀﾞｰ		2		
49AA	1129-5004-01	SHAFT ｼｬﾌﾄ		2		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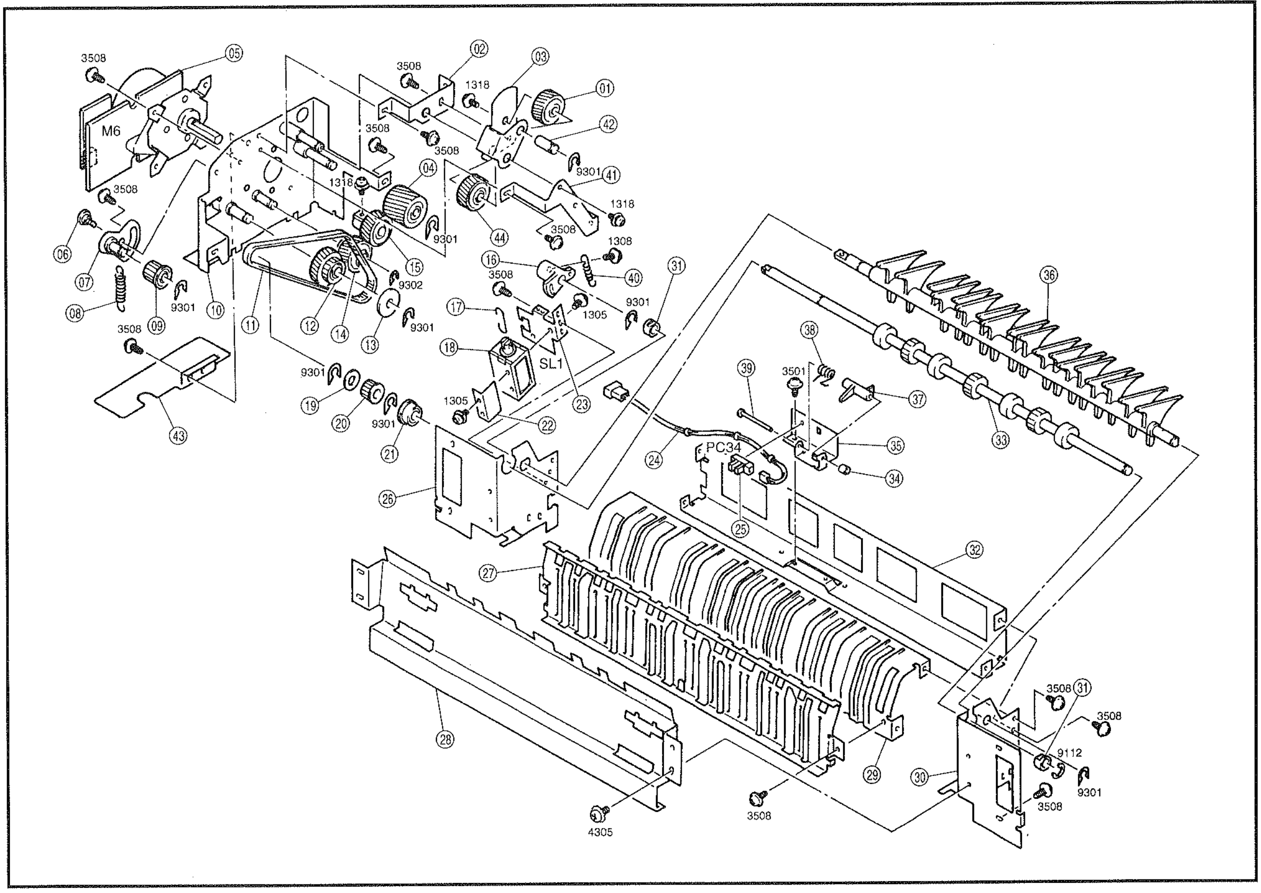
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1161-3824-01	ROLLER ﾛｰﾗｰ	2		
02AA	1161-0204-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
03AA	1161-3823-02	FRAME ﾌﾚｰﾑ	1		
04AA	1200-3134-16	BUSHING ｼﾞｸｳｹ	2		
05AA	1075-3803-01	HINGE ﾋﾝｼﾞ	1		
06AA	1161-3804-01	PLATE ﾌﾟﾚｰﾄ	2		
07AA	1161-3865-01	COVER ｶﾊﾞｰ	1		
08AA	1075-3809-01	HINGE ﾋﾝｼﾞ	1		
09AA	4102-3149-01	BALL BEARING ﾎﾞｰﾙﾍﾞｱﾘﾝｸﾞ	4		
10AA	4425-3103-12	ROLL ﾛｰﾙ	12		
11AA	1161-3827-01	SHAFT ｼｬﾌﾄ	3		
12AA	1161-7346-01	LABEL PUSH ﾗﾍﾞﾙ	1		
13AA	1161-3853-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	4		
14AA	1149-3479-01	COLLAR ｶﾗｰ	3		
15AA	1139-3118-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	2		
16AA	1139-3102-01	BUSHING ｼﾞｸｳｹ	6		
17AA	4425-3958-01	ACTUATOR ｱｸﾁｪｰﾀｰ	1		
18AA	1200-2105-07	COLLAR ｶﾗｰ	1		
19AA	1161-3819-01	LEVER ﾚﾊﾞｰ	1		
20AA	1161-3808-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
21AA	1161-3837-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	2		
22AA	1161-3838-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
23AA	9314-1611-31	MOTOR TURNOVER ﾓｰﾀｰ ﾊﾝﾃﾝ (M30)	1		
24AA	9384-1900-56	PWB SUPPORT 6.35H ｷﾊﾞﾝｻﾎﾟｰﾄ	4		
25AA	1161-0126-01	PW BOARD-U DRIVE ﾌﾟﾘﾝﾄｷﾊﾞﾝU ｸﾄﾞｳ (PWB-U)	1		
26AA	1161-3843-01	COVER ｶﾊﾞｰ	1		
27AA	1161-3825-01	ROLLER ﾛｰﾗｰ	1		
28AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC32,35)	2		
29AA	1161-6816-01	HARNESS ﾊｰﾈｽ	1		
30AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ	1		
31AA	1161-0205-02	FRAME ﾌﾚｰﾑ	1		
32AA	1500-2640-04	MAGNET CATCH ﾏｸﾞﾈｯﾄｷｬｯﾁ	1		
33AA	1075-3167-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
34AA	1273-2539-01	PULLEY ﾌﾟｰﾘｰ	1		
35AA	1161-0206-02	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
36AA	1100-1321-13	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
37AA	1053-1324-01	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	2		
38AA	1161-3846-02	PULLEY 28T ﾌﾟｰﾘｰ	1		
39AA	1300-3312-15	GEAR 16T ｷﾞｱｰ	1		
40AA	1075-3870-02	HOLDER ﾎﾙﾀﾞｰ	1		
41AA	1075-3880-01	COLLAR ｶﾗｰ	1		
42AA	1075-3871-01	GEAR 16T ｷﾞｱｰ	1		
43AA	1200-1566-04	WASHER ﾜｯｼｬｰ	2		
44AA	1100-1340-05	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
45AA	1161-3836-01	PLY GEAR 18/22T ﾌﾟﾘｰｷﾞｱｰ	1		
46AA	1075-2579-01	PULLEY 22T ﾌﾟｰﾘｰ	1		
47AA	1161-3812-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
48AA	1200-1132-01	COLLAR ｶﾗｰ	2		
49AA	1038-4701-01	ROLL ﾛｰﾙ	2		
50AA	1161-3852-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
51AA	1161-3818-02	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
52AA	1161-3844-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
53AA	1161-3816-02	GUIDE ｶﾞｲﾄﾞ	1		
54AA	1161-3851-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	3		
55AA	1200-5212-04	PIN ﾋﾟﾝ	1		
56AA	4425-3935-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
57AA	1053-5415-01	MAGNET CATCH ﾏｸﾞﾈｯﾄｷｬｯﾁ	1		
58AA	1161-3817-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
59AA	1075-3881-01	COVER ｶﾊﾞｰ	1		
60AA	1075-3872-01	SHAFT ｼｬﾌﾄ	1		
61AA	1075-3875-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
62AA	1100-1341-05	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		

35 PAPER EXIT SECTION 反転部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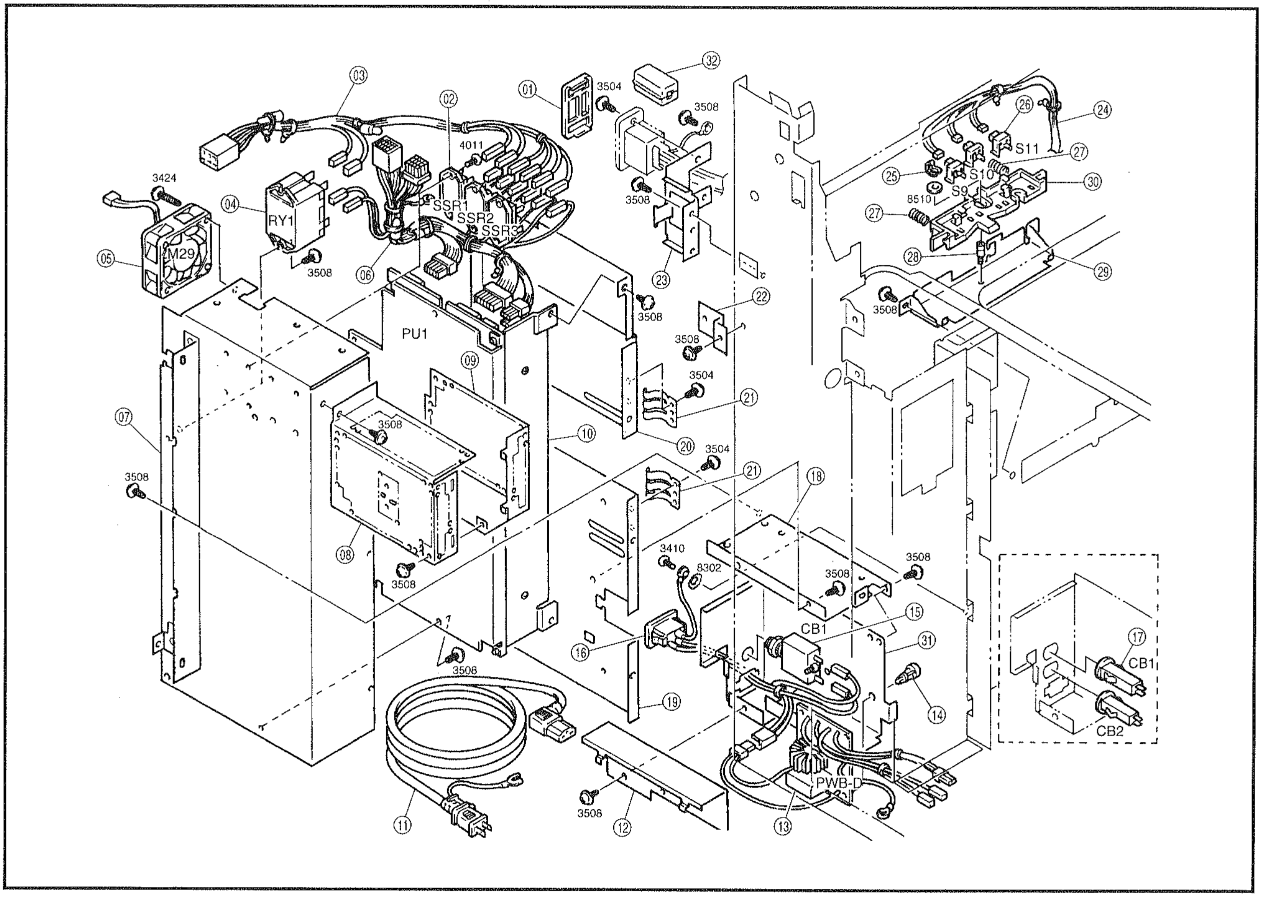
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1161-2574-01	GEAR 25T ｷﾞｱｰ	1		
02AA	1161-2549-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
03AA	1161-2547-01	LEVER ﾚﾊﾞｰ	1		
04AA	1161-2572-01	GEAR 23T ｷﾞｱｰ	1		
05AA	9314-2310-54	PWB-MOTOR FUSING ﾓｰﾀｰﾄﾞﾗｲﾌﾞﾕﾆｯﾄ ﾃｲﾁｬｸ (M6)	1		
06AA	1100-1340-10	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
07AA	1075-0281-01	TENSION LEVER ﾃﾝｼｮﾝﾚﾊﾞｰ	1		
08AA	1075-2582-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
09AA	1500-2513-18	PULLEY 24T ﾌﾟｰﾘｰ	1		
10AA	1161-0280-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
11AA	1075-2580-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1		
12AA	1161-2577-01	PLY GEAR 28/35T ﾌﾟﾘｰｷﾞｱｰ	1		
13AA	1273-2543-01	WASHER ﾜｯｼｬｰ	1		
14AA	1161-2587-01	GEAR 24T ｷﾞｱｰ	1		
15AA	1161-2571-01	GEAR 25T ｷﾞｱｰ	1		
16AA	1031-4709-01	LEVER ﾚﾊﾞｰ	1		
17AA	1031-3732-02	HOOK ﾌｯｸ	1		
18AA	9321-2120-31	SOLENOID EX/DUP SW ｿﾚﾉｲﾄﾞ ﾂｳｼｷﾘｶｴ (SL1)	1		
19AA	1200-1566-04	WASHER ﾜｯｼｬｰ	1		
20AA	1075-2579-01	PULLEY 22T ﾌﾟｰﾘｰ	1		
21AA	1300-4342-07	BALL BEARING ﾎﾞｰﾙﾍﾞｱﾘﾝｸﾞ	1		
22AA	1075-5803-01	COVER ｶﾊﾞｰ	1		
23AA	1075-5738-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
24AA	1061-6869-01	GROUND WIRE ｱｰｽｺｰﾄﾞ	1		
25AA	9335-1310-41	PHOTO INTERRUPTER TURNOVER FEED ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ﾊﾝﾃﾝ (PC34)	1		
26AA	1075-5748-02	FRAME ﾌﾚｰﾑ	1		
27AA	1075-5851-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
28AA	1075-5745-04	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
29AA	1075-5799-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
30AA	1075-0289-01	FRAME ﾌﾚｰﾑ	1		
31AA	1200-3134-16	BUSHING ｼﾞｸｳｹ	2		
32AA	1075-5721-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
33AA	1075-5790-02	ROLLER ﾛｰﾗｰ	1		
34AA	1200-2105-05	COLLAR ｶﾗｰ	1		
35AA	1075-5718-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
36AA	1075-5792-03	GUIDE LEVER ｶﾞｲﾄﾞﾚﾊﾞｰ	1		
37AA	1075-5860-01	ACTUATOR ｱｸﾁｪｰﾀｰ	1		
38AA	1075-5862-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
39AA	1200-5213-01	PIN ﾋﾟﾝ	1		
40AA	1400-2241-05	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
41AA	1161-2546-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
42AA	1075-2576-01	SHAFT ｼｬﾌﾄ	1		
43AA	1161-2550-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
44AA	1161-2581-01	GEAR 25T ｷﾞｱｰ	1		



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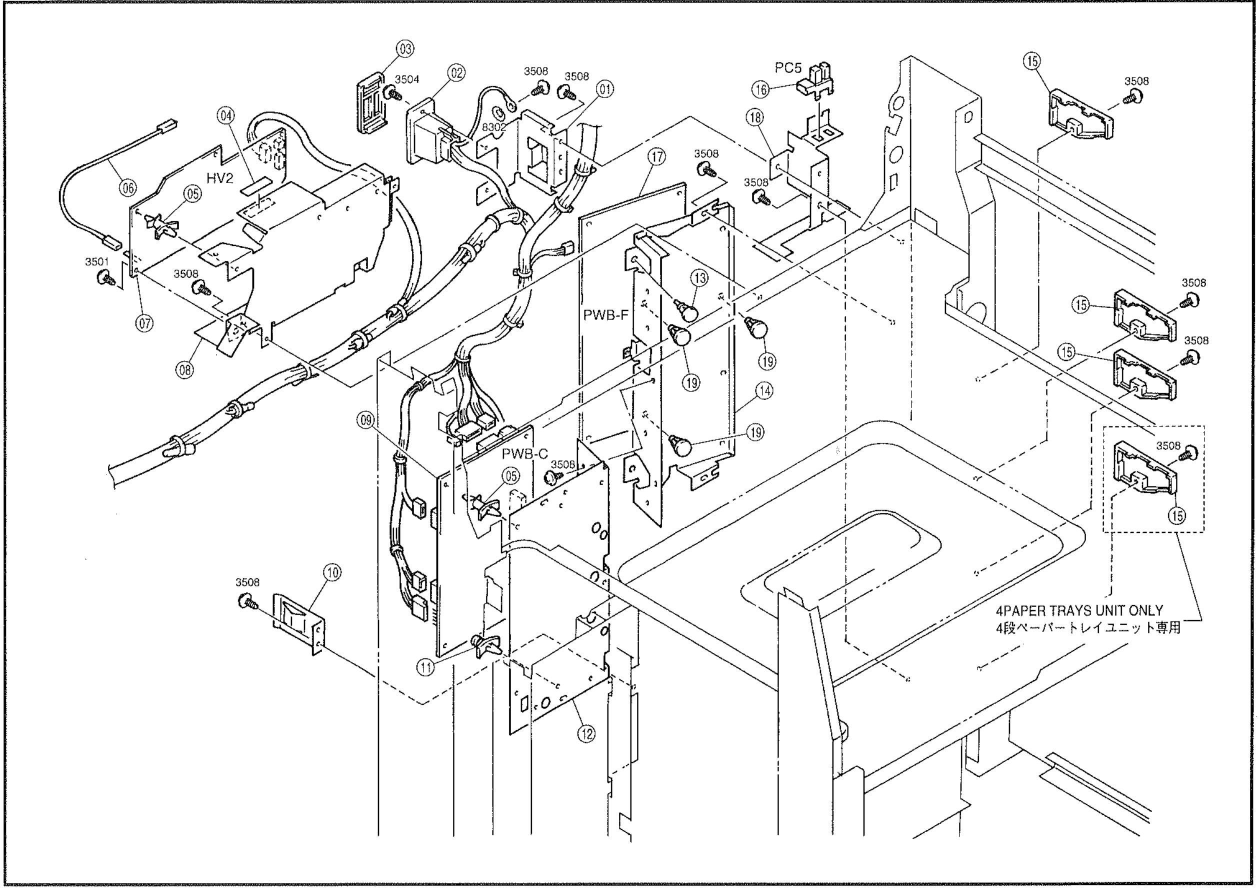
01AA	9384-2310-41	COVER ｶﾊﾞｰ		1		
*02AA	9343-4310-21	TRIAC MODULE ﾄﾗｲｱｯｸﾓｼﾞｭｰﾙ	HEATER LAMP (SSR1-3)	3	0511	
*02BA	9343-4210-21	TRIAC MODULE ﾄﾗｲｱｯｸﾓｼﾞｭｰﾙ	HEATER LAMP (SSR1-3)	3	2612	
03AA	1161-6827-01	HARNESS ﾊｰﾈｽ		1		
04AA	9341-2210-41	RELAY ﾘﾚｰ	MAIN RELAY ﾒｲﾝﾘﾚｰ (RY1)	1		
05AA	9313-1610-52	MOTOR ﾓｰﾀｰ	COOLING FAN ﾃﾞﾝｹﾞﾝ (M29)	1		
06AA	1161-6803-01	HARNESS ﾊｰﾈｽ		1		
07AA	1161-2403-03	COVER ｶﾊﾞｰ		1		
08AA	1161-2437-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
09AA	1161-2438-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
*10AA	9325-2610-62	PWB-PU ﾃﾞﾝｹﾞﾝｷﾊﾞﾝ	POWER SUPPLY ﾃﾞﾝｹﾞﾝ (PU1)	1	0511	
*10BA	9325-2610-72	PWB-PU ﾃﾞﾝｹﾞﾝｷﾊﾞﾝ	POWER SUPPLY ﾃﾞﾝｹﾞﾝ (PU1)	1	2612	
*11AA	9381-4610-21	POWER CORD ﾃﾞﾝｹﾞﾝｺｰﾄﾞ		1	0600	
*11BA	9381-4610-31	POWER CORD ﾃﾞﾝｹﾞﾝｺｰﾄﾞ		1	2505	
*11CA	9381-4310-81	POWER CORD ﾃﾞﾝｹﾞﾝｺｰﾄﾞ		1	2626	
*11DA	9381-4311-41	POWER CORD ﾃﾞﾝｹﾞﾝｺｰﾄﾞ		1	2758	
12AA	1161-2434-12	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
*13AA	1161-0104-01	PW BOARD-D ﾌﾟﾘﾝﾄｷﾊﾞﾝD	NOISE FILTER ﾌｨﾙﾀｰ (PWB-D)	1	0511	
*13BA	1161-0105-02	PW BOARD-D ﾌﾟﾘﾝﾄｷﾊﾞﾝD	NOISE FILTER ﾌｨﾙﾀｰ (PWB-D)	1	2612	
14AA	9384-1520-31	PWB SUPPORT ｷﾊﾞﾝｻﾎﾟｰﾄ		4		
*15AA	9346-1610-21	BREAKER ﾌﾞﾚｰｶｰ	CIRC BREAKER (CB1)	1	0511	
*16AA	1161-6823-01	HARNESS ﾊｰﾈｽ		1	0511	
*16BA	1161-6824-01	HARNESS ﾊｰﾈｽ		1	2612	
*17AA	9346-1610-11	CIRCUIT PROTECTER ｻｰｷｯﾄﾌﾟﾛﾃｸﾀ	CIRC BREAKER (CB1,2)	2	2612	
18AA	1161-2435-12	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
19AA	1161-2431-12	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
20AA	1161-2432-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
*21AA	1161-6751-01	GROUND PLATE ｱｰｽﾊﾞﾝ		2	2612	
22AA	1075-1009-01	PLATE ﾌﾟﾚｰﾄ		1		
23AA	1075-2419-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
24AA	1161-6812-01	HARNESS ﾊｰﾈｽ		1		
25AA	1033-4402-01	STOPPER RING ﾄﾒﾘﾝｸﾞ		1		
26AA	9332-1310-11	DETECTING SWITCH ｹﾝｼｭﾂｽｲｯﾁ	SIZE DETECT ｻｲｽﾞ (S9-11)	3		
27AA	0996-3061-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ		2		
28AA	0996-3063-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ		1		
29AA	1161-3122-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1		
30AA	0996-3025-01	HOLDER ﾎﾙﾀﾞｰ		1		
*31AA	1161-2433-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1	0511	
*31BA	1161-2441-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1	2612	
*32AA	9326-1010-51	FERRITE CORE ﾌｪﾗｲﾄｺｱ		1	2424	

37 ELECTRICAL COMPONENTS II 電装部 II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4PAPER TRAYS UNIT ONLY
4段ペーパートレイユニット専用

INDEX	PART NO.	PART NAME		QTY	AREA	REMARKS	INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-2419-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1								
02AA	1161-6801-02	HARNESS ﾊｰﾈｽ		1								
03AA	9384-2310-41	COVER ｶﾊﾞｰ		1								
04AA	1129-7303-01	LABEL HIGH VOLTAGE ﾗﾍﾞﾙ ｺｳｱﾂﾁｭｳｲ		1								
05AA	9384-1900-57	PWB SUPPORT 9.53H ｷﾊﾞﾝｻﾎﾟｰﾄ		7								
06AA	1075-6881-01	HARNESS ﾊｰﾈｽ		1								
＊07AA	9325-1310-63	PWB-HV ｺｳｱﾂﾄﾗﾝｽ	HIGH VOLTAGE ｺｳｱﾂ (HV2)	1	0749							
＊07BA	9325-1410-12	PWB-HV ｺｳｱﾂﾄﾗﾝｽ	HIGH VOLTAGE ｺｳｱﾂ (HV2)	1	2424							
08AA	1075-2408-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1								
09AA	1161-0103-01	PW BOARD-C ﾌﾟﾘﾝﾄｷﾊﾞﾝC	POWER SUPPLY ﾃﾞﾝｹﾞﾝ (PWB-C)	1								
10AA	1075-5604-01	SUPPORT PLATE ｻﾎﾟｰﾄﾌﾟﾚｰﾄ		1								
11AA	9384-1900-55	PWB SUPPORT 9.53H ｷﾊﾞﾝｻﾎﾟｰﾄ		4								
12AA	1075-2406-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1								
13AA	9384-1520-31	PWB SUPPORT ｷﾊﾞﾝｻﾎﾟｰﾄ		5								
14AA	1161-2410-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1								
15AA	1075-3079-02	COVER ｶﾊﾞｰ		4								
16AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ	PRE-DRIVE OFF ｶｲﾃﾝ OFF (PC5)	1								
17AA	1161-0106-01	PW BOARD-F ﾌﾟﾘﾝﾄｷﾊﾞﾝF	DRAWER S/P ﾄﾚｲS/P (PWB-F)	1								
18AA	1075-1005-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ		1								
19AA	9384-1921-41	PWB SUPPORT ｷﾊﾞﾝｻﾎﾟｰﾄ		3								

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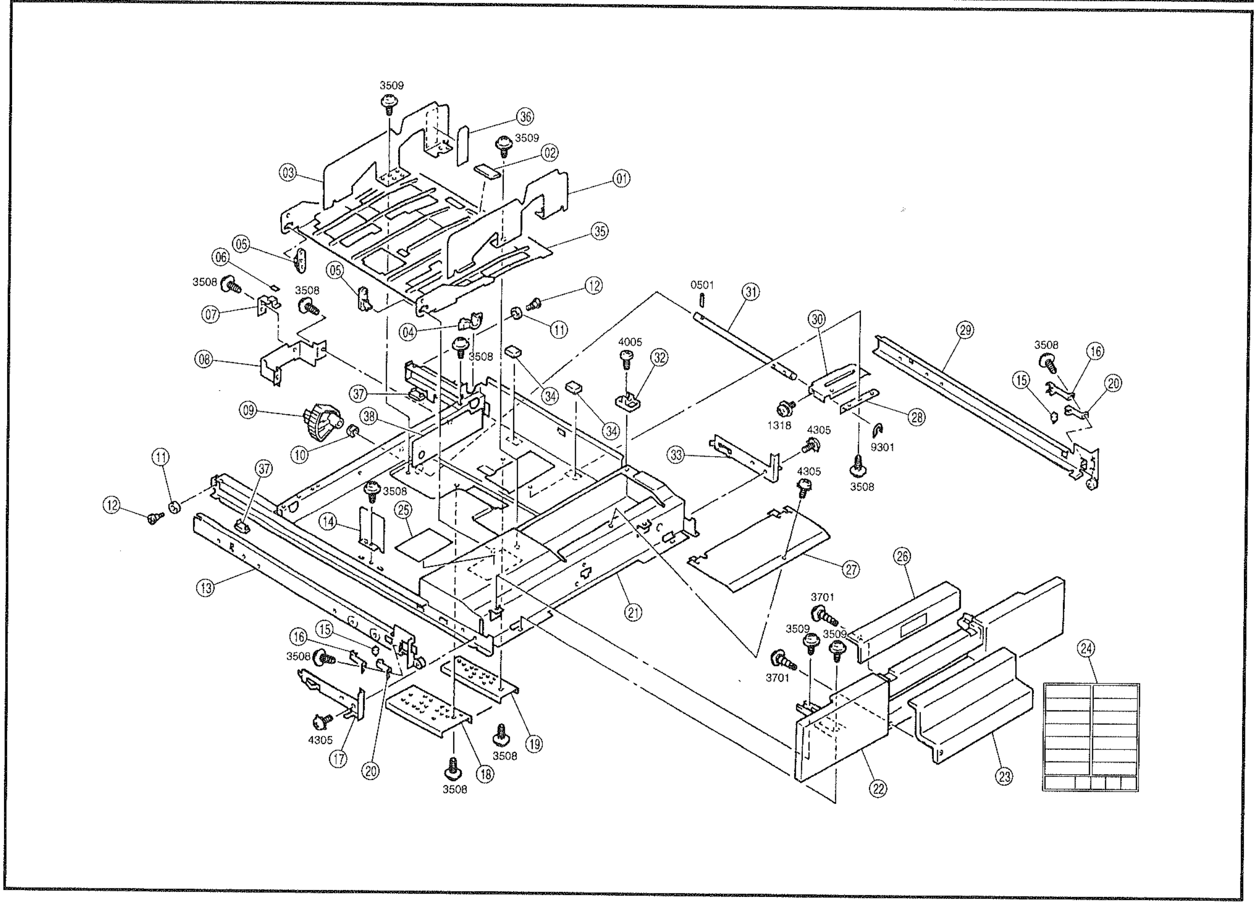
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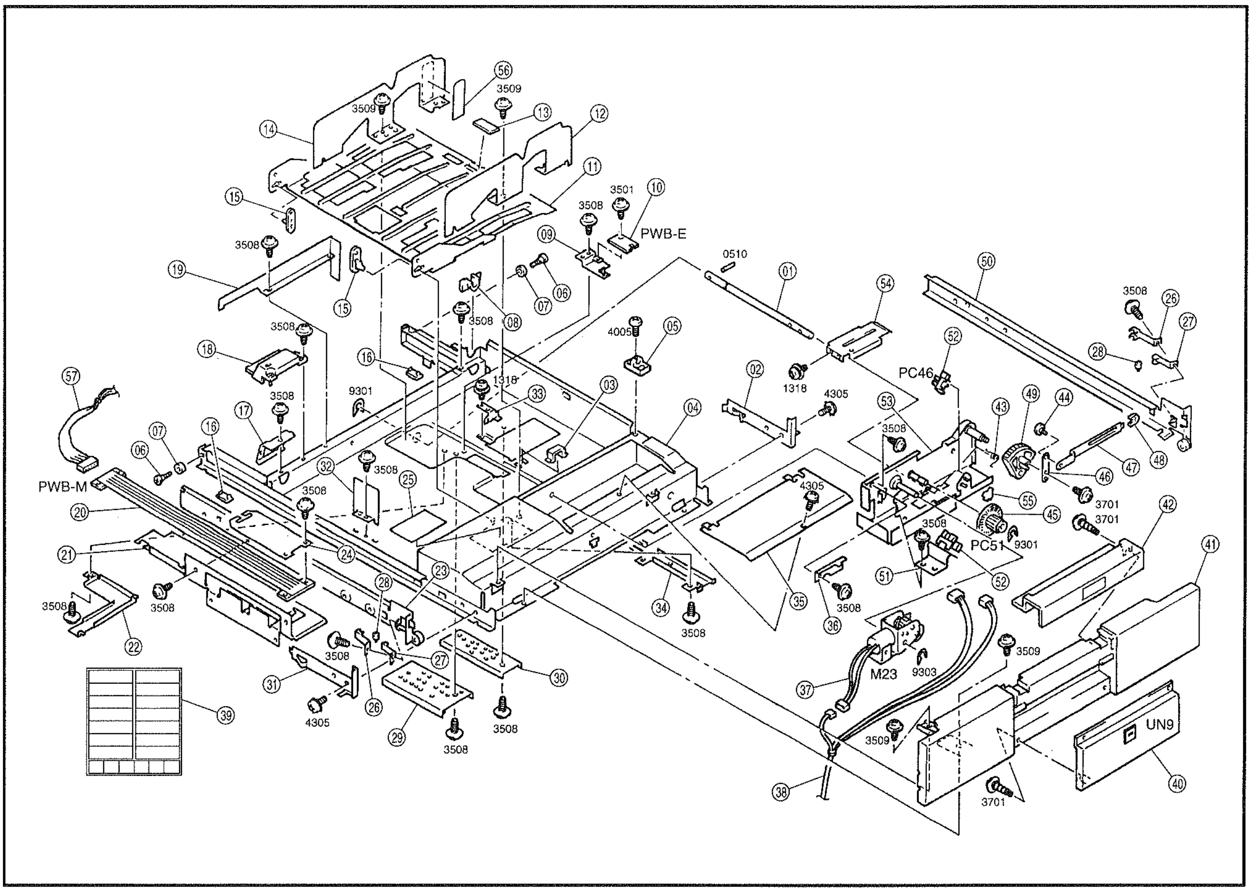
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-3112-01	GUIDE ガイド	1		
02AA	1273-3052-01	CORK コルク	1		
03AA	1075-3111-01	GUIDE ガイド	1		
04AA	1273-3079-01	HOLDER ホルダー	1		
05AA	1274-3103-02	HOLD PLATE ホジバン	2		
06AA	1273-3058-01	SEAL シール	1		
07AA	1273-3039-01	PLATE SPRING プレートスプリング	1		
08AA	1075-3110-02	BRACKET トリツケバン	1		
09AA	1075-3154-04	SEGMENT GEAR ギアー	1		
10AA	1200-3131-07	COLLAR カラー	1		
11AA	1273-3002-01	ROLL ロール	2		
12AA	1273-3003-01	SHOULDER SCREW ダンネジ	2		
13AA	1075-0220-01	RAIL レール	1		
14AA	1052-3287-01	STOP ストッパー	1		
15AA	1273-2017-01	ROLL ロール	2		
16AA	1273-2016-01	PLATE SPRING プレートスプリング	2		
17AA	1075-3106-01	GUIDE PLATE ガイドバン	1		
18AA	1075-3113-01	REINFORCE PLATE ホキョウバン	1		
19AA	1075-3114-01	REINFORCE PLATE ホキョウバン	1		
20AA	1273-2014-01	HOLDER ホルダー	2		
21AA	1075-3101-02	CASSETTE BODY カセットボディ	1		
22AA	4425-3256-03	CASSETTE COVER カセットカバー	1		
23AA	4425-3259-01	COVER カバー	1		
*24AA	1151-7371-01	LABEL ラベル	1	0400	
*24BA	1151-7372-01	LABEL ラベル	1	2303	
25AA	4479-7302-01	LABEL PAPER LODING ラベルヨウシノセットホウホウ	1		
26AA	1151-3151-01	COVER カバー	1		
27AA	1075-3116-02	LID フタ	1		
28AA	1075-3119-01	PLATE プレート	1		
29AA	1075-0221-01	RAIL レール	1		
30AA	1075-3115-01	LEVER レバー	1		
31AA	1075-3143-01	SHAFT シャフト	1		
32AA	1075-3151-01	HOLDER ホルダー	1		
33AA	1075-3105-01	GUIDE PLATE ガイドバン	1		
34AA	1273-3043-01	SPONGE スポンジ	2		
35AA	1075-3102-03	LIFTING PLATE オシアゲバン	1		
36AA	1075-7371-01	LABEL MAX LEVEL ラベル	1		
37AA	1273-3055-01	SLIDER スライダー	2		
38AA	1161-3145-01	GUIDE PLATE ガイドバン	1		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INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-3153-02	SHAFT ｼｬﾌﾄ	1		
02AA	1075-3118-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
03AA	1065-5872-01	CORD CLAMP ｺｰﾄﾞｵｻｴ	1		
04AA	1075-3133-02	CASSETTE BODY ｶｾｯﾄﾎﾞﾃﾞｨ	1		
05AA	1075-3151-01	HOLDER ﾎﾙﾀﾞｰ	1		
06AA	1273-3003-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
07AA	1273-3002-01	ROLL ﾛｰﾙ	2		
08AA	1273-3079-01	HOLDER ﾎﾙﾀﾞｰ	1		
09AA	1075-3122-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
10AA	4425-0104-02	PW BOARD-E PAPER EMPTY ﾌﾟﾘﾝﾄｷﾊﾞﾝ E ｴﾝﾌﾟﾃｨ (PWB-E)	1		
11AA	1075-3102-03	LIFTING PLATE ｵｼｱｹﾞﾊﾞﾝ	1		
12AA	1075-3112-01	GUIDE ｶﾞｲﾄﾞ	1		
13AA	1273-3052-01	CORK ｺﾙｸ	1		
14AA	1075-3111-01	GUIDE ｶﾞｲﾄﾞ	1		
15AA	1274-3103-02	HOLD PLATE ﾎｼﾞﾊﾞﾝ	2		
16AA	1273-3055-01	SLIDER ｽﾗｲﾀﾞｰ	2		
17AA	1075-3141-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
18AA	1075-3176-03	COVER ｶﾊﾞｰ	1		
19AA	1075-3134-01	COVER ｶﾊﾞｰ	1		
20AA	1134-0107-01	PW BOARD-M FLEX CIRC ﾌﾟﾘﾝﾄｷﾊﾞﾝ M ﾊﾞﾝﾀ (PWB-M)	1		
21AA	1075-3140-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
22AA	1075-3130-01	COVER ｶﾊﾞｰ	1		
23AA	1075-0220-01	RAIL ﾚｰﾙ	1		
24AA	1134-3030-01	GUIDE ｶﾞｲﾄﾞ	1		
25AA	4479-7302-01	LABEL PAPER LODING ﾗﾍﾞﾙﾖｳｼﾉｾｯﾄﾎｳﾎｳ	1		
26AA	1273-2016-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
27AA	1273-2014-01	HOLDER ﾎﾙﾀﾞｰ	2		
28AA	1273-2017-01	ROLL ﾛｰﾙ	2		
29AA	1075-3113-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
30AA	1075-3114-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
31AA	1075-3117-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
32AA	1052-3287-01	STOP ｽﾄｯﾊﾟｰ	1		
33AA	1075-3120-01	PLATE ﾌﾟﾚｰﾄ	1		
34AA	1075-3129-01	COVER ｶﾊﾞｰ	1		
35AA	1075-3116-02	LID ﾌﾀ	1		
36AA	1075-3144-01	POSITIONING PLATE ｲﾁｷﾞﾒﾊﾞﾝ	1		
37AA	9312-1311-23	MOTOR DRWR LIFT-UP ﾓｰﾀｰ ﾘﾌﾄｱｯﾌﾟ (M23)	1		
38AA	1161-6805-01	HARNESS ﾊｰﾈｽ	1		
39AA	1151-7372-01	LABEL ﾗﾍﾞﾙ	1		
40AA	1156-6051-01	COVER(WITH SWITCH) PAPER DESCENT ｶﾊﾞｰ(ｽｲｯﾁﾂｷ) ｶｲｼﾞｮ (UN9)	1		
41AA	4425-3256-03	CASSETTE COVER ｶｾｯﾄｶﾊﾞｰ	1		
42AA	4479-3731-01	COVER ｶﾊﾞｰ	1		
43AA	1075-3166-02	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
44AA	1100-1340-09	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
45AA	1075-3158-01	GEAR 20T ｷﾞｱｰ	1		
46AA	1075-3125-03	JOINT ｼﾞｮｲﾝﾄ	1		
47AA	1075-3124-01	LEVER ﾚﾊﾞｰ	1		
48AA	1075-3159-01	CAP ｷｬｯﾌﾟ	1		
49AA	1075-3154-04	SEGMENT GEAR ｷﾞｱｰ	1		
50AA	1075-0221-01	RAIL ﾚｰﾙ	1		
51AA	1161-3133-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
52AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC46, 51)	2		
53AA	1161-0203-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
54AA	1075-3115-01	LEVER ﾚﾊﾞｰ	1		
55AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ	1		
56AA	1075-7371-01	LABEL MAX LEVEL ﾗﾍﾞﾙ	1		
57AA	1161-6806-01	HARNESS ﾊｰﾈｽ	1		

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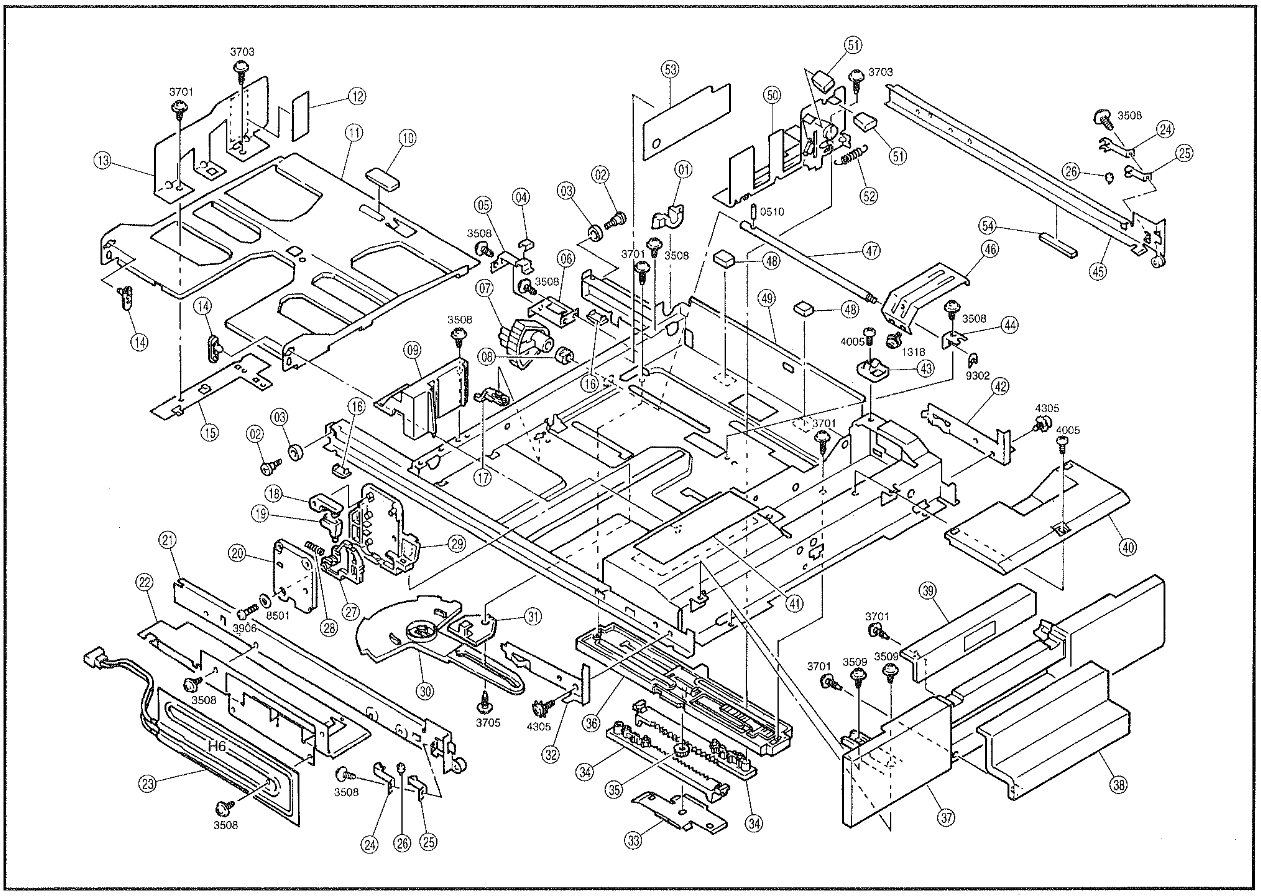
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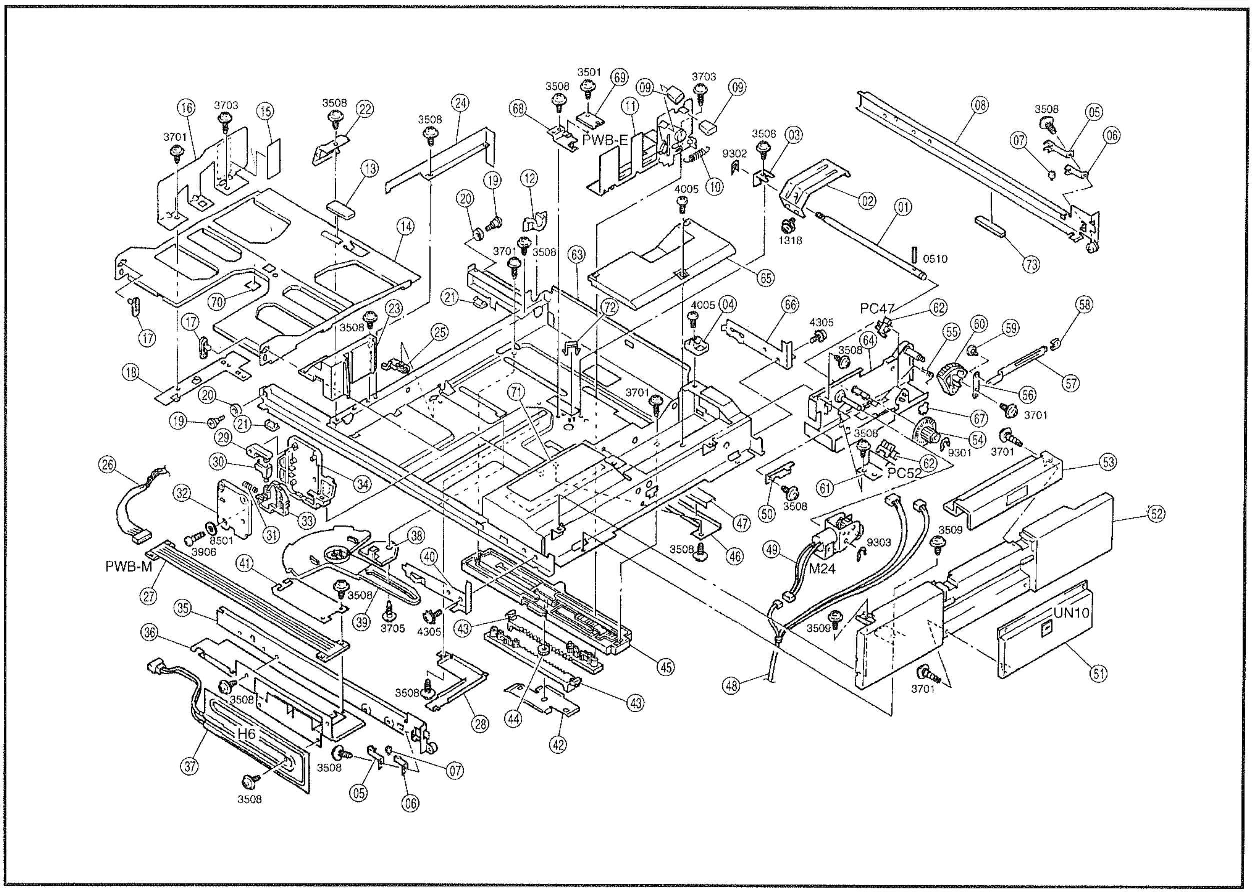
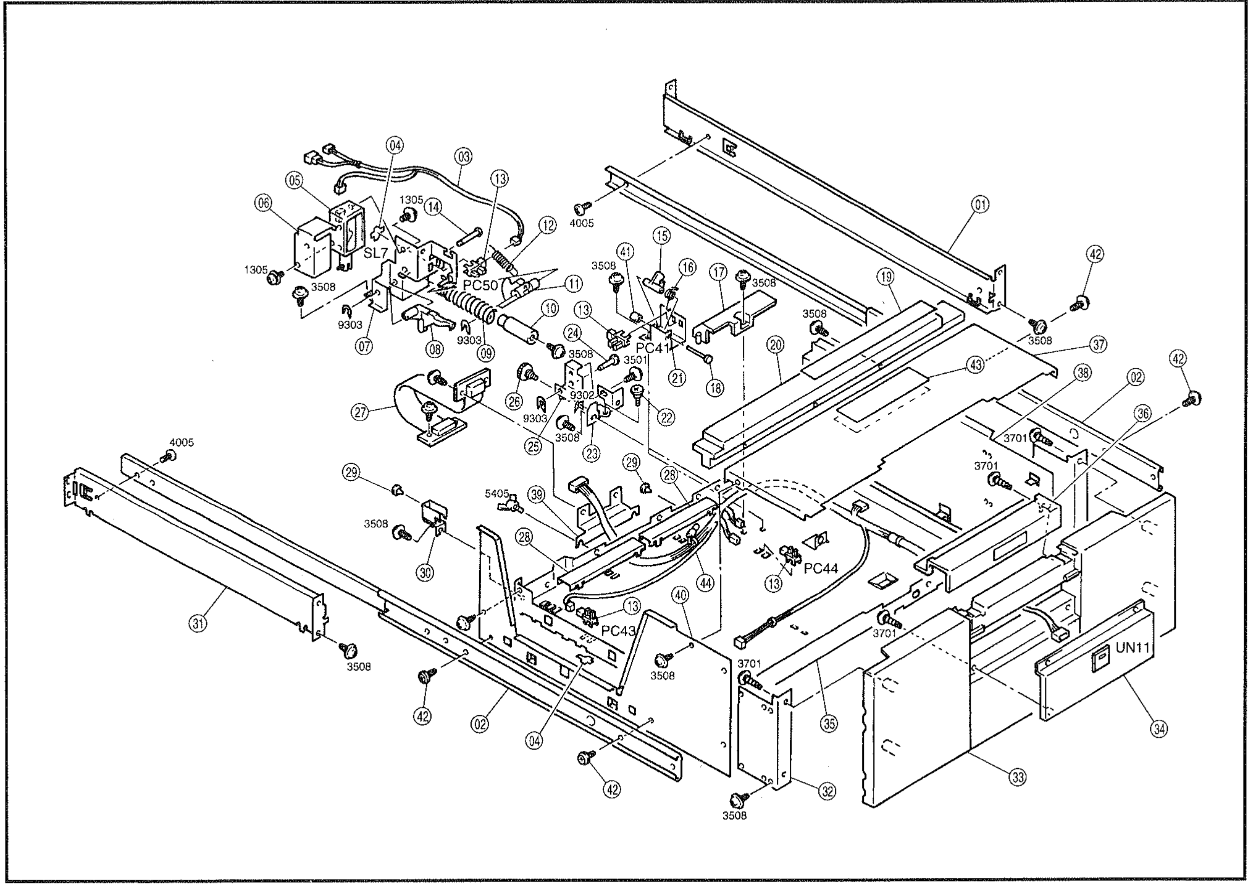
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1273-3079-01	HOLDER ﾎﾙﾀﾞｰ	1		
02AA	1273-3003-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
03AA	1273-3002-01	ROLL ﾛｰﾙ	2		
04AA	1273-3058-01	SEAL ｼｰﾙ	1		
05AA	1161-3130-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	1		
06AA	1161-3131-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
07AA	1075-3154-04	SEGMENT GEAR ｷﾞｱｰ	1		
08AA	1200-3131-07	BUSHING ｼﾞｸｳｹ	1		
09AA	1161-3142-01	COVER ｶﾊﾞｰ	1		
10AA	1273-3052-01	CORK ｺﾙｸ	1		
11AA	1161-3102-02	LIFTING PLATE ｵｼｱｹﾞﾊﾞﾝ	1		
12AA	1075-7371-01	LABEL MAX LEVEL ﾗﾍﾞﾙ	1		
13AA	1161-3103-01	REGULATING PLATE ｷｾｲﾊﾞﾝ	1		
14AA	1274-3103-02	HOLD PLATE ﾎｼﾞﾊﾞﾝ	2		
15AA	1161-3105-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
16AA	1273-3055-01	SLIDER ｽﾗｲﾀﾞｰ	2		
17AA	1161-3127-01	PAWL ﾂﾒ	1		
18AA	1149-3411-02	HOLDER ﾎﾙﾀﾞｰ	1		
19AA	1149-3407-01	STOPPER-RED ｽﾄｯﾊﾟｰ	1		
20AA	1149-3405-01	COVER ｶﾊﾞｰ	1		
21AA	1075-0220-01	RAIL ﾚｰﾙ	1		
*22AA	1075-3140-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1	0710	
*23AA	9352-6310-11	HEATER PAPER DEHUM ﾋｰﾀｰ ﾍﾟｰﾊﾟｰｼﾞｮ. (H6)	1	0710	
24AA	1273-2016-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
25AA	1273-2014-01	HOLDER ﾎﾙﾀﾞｰ	2		
26AA	1273-2017-01	ROLL ﾛｰﾙ	2		
27AA	1161-3109-01	ROCK LEVER ﾛｯｸﾚﾊﾞｰ	1		
28AA	1149-3406-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
29AA	1149-3404-01	REGULATING PLATE ｷｾｲﾊﾞﾝ	1		
30AA	1161-3121-01	LEVER ﾚﾊﾞｰ	1		
31AA	1161-3110-02	SUPPORT PLATE ｵｻｴﾊﾞﾝ	1		
32AA	1075-3106-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
33AA	1161-3114-01	STOPPER ｽﾄｯﾊﾟｰ	1		
34AA	1161-3113-02	RACK GEAR ﾗｯｸｷﾞｱｰ	2		
35AA	0996-3018-01	GEAR 14T ｷﾞｱｰ	1		
36AA	1161-3112-02	HOLDER ﾎﾙﾀﾞｰ	1		
37AA	4425-3256-03	CASSETTE COVER ｶｾｯﾄｶﾊﾞｰ	1		
38AA	4425-3259-01	COVER ｶﾊﾞｰ	1		
39AA	1151-3151-01	COVER ｶﾊﾞｰ	1		
40AA	1161-3132-02	COVER ｶﾊﾞｰ	1		
41AA	1161-7308-01	LABEL PAPER LOADING ﾗﾍﾞﾙﾖｳｼﾉｾｯﾄﾎｳﾎｳ	1		
42AA	1075-3105-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
43AA	1161-3128-01	HOLDER ﾎﾙﾀﾞｰ	1		
44AA	1161-3115-01	SUPPORT ｼｼﾞﾊﾞﾝ	1		
45AA	1075-0221-01	RAIL ﾚｰﾙ	1		
46AA	1161-3129-01	LIFTING PLATE ｵｼｱｹﾞﾊﾞﾝ	1		
47AA	1161-3143-01	SHAFT ｼｬﾌﾄ	1		
48AA	1273-3043-01	SPONGE ｽﾎﾟﾝｼﾞ	2		
49AA	1161-3116-01	CASSETTE BODY ｶｾｯﾄﾎﾞﾃﾞｨ	1		
50AA	1161-0202-02	REGULATING PLATE ｷｾｲﾊﾞﾝ	1		
51AA	1161-3120-02	KNOB ﾂﾏﾐ	2		
52AA	1400-2242-04	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
53AA	1161-3145-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
54AA	1075-3092-01	RUBBER STRIP ｺﾞﾑ	1		



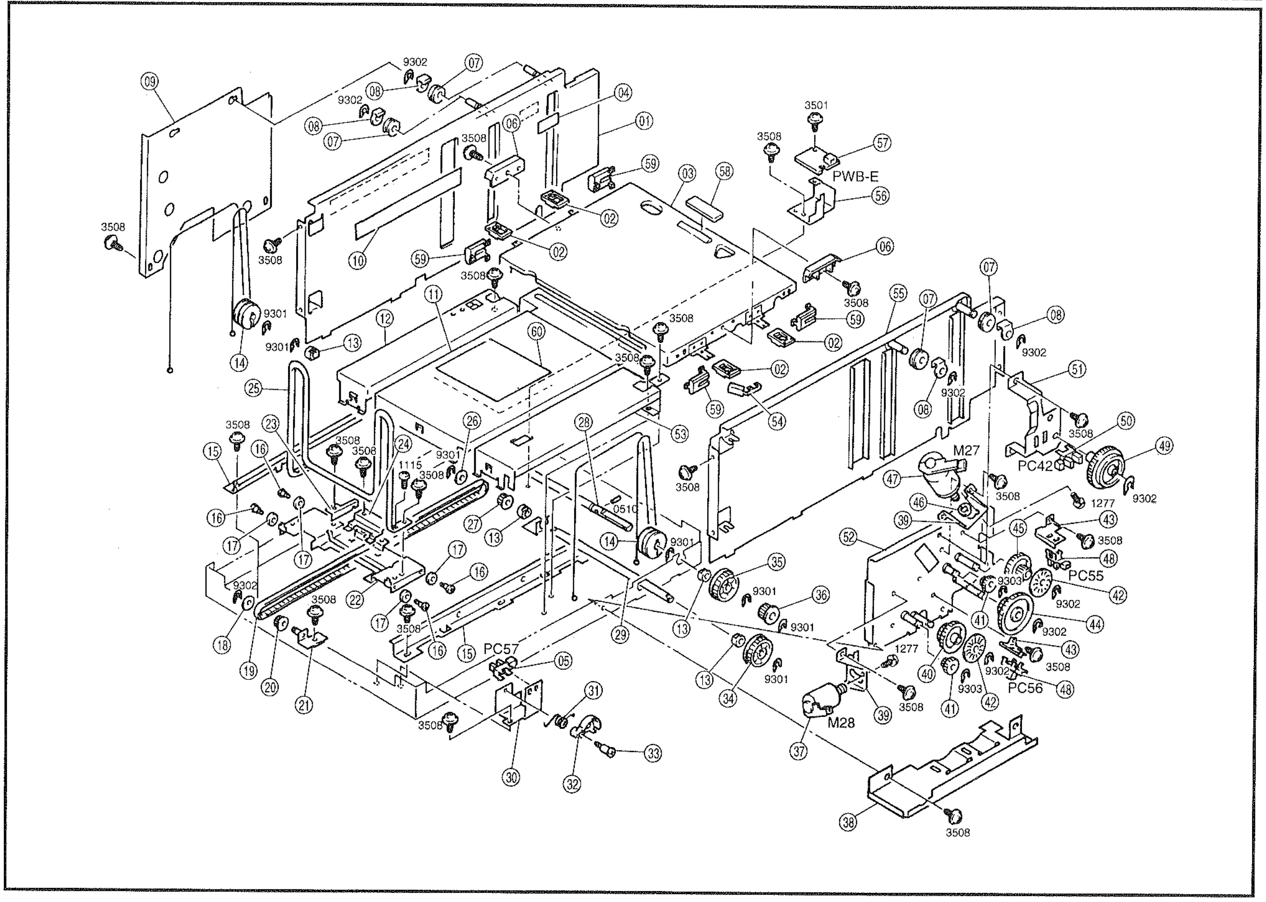
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1161-3140-01	SHAFT ｼｬﾌﾄ	1		
02AA	1161-3129-01	LIFTING PLATE ｵｼｱｹﾞﾊﾞﾝ	1		
03AA	1161-3115-01	SUPPORT ｼｼﾞﾊﾞﾝ	1		
04AA	1161-3128-01	HOLDER ﾎﾙﾀﾞｰ	1		
05AA	1273-2016-01	PLATE SPRING ﾌﾟﾚｰﾄｽﾌﾟﾘﾝｸﾞ	2		
06AA	1273-2014-01	HOLDER ﾎﾙﾀﾞｰ	2		
07AA	1273-2017-01	ROLL ﾛｰﾙ	2		
08AA	1075-0221-01	RAIL ﾚｰﾙ	1		
09AA	1161-3120-02	KNOB ﾂﾏﾐ	2		
10AA	1400-2242-04	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
11AA	1161-0202-02	REGULATING PLATE ｷｾｲﾊﾞﾝ	1		
12AA	1273-3079-01	HOLDER ﾎﾙﾀﾞｰ	1		
13AA	1273-3052-01	CORK ｺﾙｸ	1		
14AA	1161-3102-02	LIFTING PLATE ｵｼｱｹﾞﾊﾞﾝ	1		
15AA	1075-7371-01	LABEL MAX LEVEL ﾗﾍﾞﾙ	1		
16AA	1161-3103-01	REGULATING PLATE ｷｾｲﾊﾞﾝ	1		
17AA	1274-3103-01	HOLD PLATE ﾎｼﾞﾊﾞﾝ	2		
18AA	1161-3105-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
19AA	1273-3003-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	2		
20AA	1273-3002-01	ROLL ﾛｰﾙ	2		
21AA	1273-3055-01	SLIDER ｽﾗｲﾀﾞｰ	2		
22AA	1075-3141-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
23AA	1161-3142-01	COVER ｶﾊﾞｰ	1		
24AA	1075-3134-01	COVER ｶﾊﾞｰ	1		
25AA	1161-3127-01	PAWL ﾂﾒ	1		
26AA	1161-6806-01	HARNESS ﾊｰﾈｽ	1		
27AA	1134-0107-01	PW BOARD-M ﾌﾟﾘﾝﾄｷﾊﾞﾝ M FLEX CIRC ﾊﾟﾝﾀ (PWB-M)	1		
28AA	1161-3118-01	COVER ｶﾊﾞｰ	1		
29AA	1149-3411-02	HOLDER ﾎﾙﾀﾞｰ	1		
30AA	1149-3407-01	STOPPER-RED ｽﾄｯﾊﾟｰ	1		
31AA	1149-3406-01	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
32AA	1149-3405-01	COVER ｶﾊﾞｰ	1		
33AA	1161-3109-01	ROCK LEVER ﾛｯｸﾚﾊﾞｰ	1		
34AA	1149-3404-01	REGULATING PLATE ｷｾｲﾊﾞﾝ	1		
35AA	1075-0220-01	RAIL ﾚｰﾙ	1		
36AA	1075-3140-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
37AA	9352-6310-11	HEATER ﾋｰﾀｰ PAPER DEHUM ﾍﾟｰﾊﾟｰｼﾞｮ (H6)	1		
38AA	1161-3110-02	SUPPORT PLATE ｵｻｴﾊﾞﾝ	1		
39AA	1161-3121-01	LEVER ﾚﾊﾞｰ	1		
40AA	1075-3117-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
41AA	1134-3030-01	GUIDE ｶﾞｲﾄﾞ	1		
42AA	1161-3114-01	STOPPER ｽﾄｯﾊﾟｰ	1		
43AA	1161-3113-02	RACK GEAR ﾗｯｸｷﾞｱｰ	2		
44AA	0996-3018-01	GEAR 14T ｷﾞｱｰ	1		
45AA	1161-3112-02	HOLDER ﾎﾙﾀﾞｰ	1		
46AA	1075-3129-01	COVER ｶﾊﾞｰ	1		
47AA	1161-3119-02	COVER ｶﾊﾞｰ	1		
48AA	1161-6805-01	HARNESS ﾊｰﾈｽ	1		
49AA	9312-1311-23	MOTOR ﾓｰﾀｰ DRWR LIFT-UP ﾘﾌﾄｱｯﾌﾟ (M24)	1		
50AA	1075-3144-01	POSITIONING PLATE ｲﾁｷﾞﾒﾊﾞﾝ	1		
51AA	1156-6051-01	COVER(WITH SWITCH) ｶﾊﾞｰ(ｽｲｯﾁﾂｷ) PAPER DESCENT ｶｲｼﾞｮ (UN10)	1		
52AA	4425-3256-03	CASSETTE COVER ｶｾｯﾄｶﾊﾞｰ	1		
53AA	4479-3731-01	COVER ｶﾊﾞｰ	1		
54AA	1075-3158-01	GEAR 20T ｷﾞｱｰ	1		
55AA	1075-3166-02	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
56AA	1075-3125-03	JOINT ｼﾞｮｲﾝﾄ	1		
57AA	1075-3124-01	LEVER ﾚﾊﾞｰ	1		
58AA	1075-3159-01	CAP ｷｬｯﾌﾟ	1		
59AA	1100-1340-09	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
60AA	1075-3154-04	SEGMENT GEAR ｷﾞｱｰ	1		
61AA	1161-3133-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
62AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC47, 52)	2		
63AA	1161-3116-01	CASSETTE BODY ｶｾｯﾄﾎﾞﾃﾞｨ	1		
64AA	1161-0203-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
65AA	1161-3132-02	COVER ｶﾊﾞｰ	1		
66AA	1075-3118-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
67AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ	1		
68AA	1161-3117-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
69AA	1134-0108-02	PW BOARD-E ﾌﾟﾘﾝﾄｷﾊﾞﾝ E PAPER EMPTY ｴﾝﾌﾟﾃｨ (PWB-E)	1		
70AA	1161-3144-01	POLYESTER FILM ﾎﾟﾘｴｽﾃﾙﾌｨﾙﾑ	1		
71AA	1161-7308-01	LABEL PAPER LOADING ﾗﾍﾞﾙﾖｳｼﾉｾｯﾄﾎｳﾎｳ	1		
72AA	1065-5872-01	CORD CLAMP ｺｰﾄﾞｵｻｴ	1		
73AA	1075-3092-01	RUBBER STRIP ｺﾞﾑ	1		

42 PAPER TRAY UNIT V(LCC) ペーパートレイユニット V PARTS MANUAL



INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1075-3712-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
02AA	1075-3702-02	RAIL ﾚｰﾙ	2		
03AA	1161-6807-01	HARNESS ﾊｰﾈｽ	1		
04AA	1136-2131-03	STOPPER ｽﾄｯﾊﾟｰ	2		
05AA	9321-2620-41	SOLENOID ｿﾚﾉｲﾄﾞ DRAWER LOCK LCCﾛｯｸ (SL7)	1		
06AA	4425-3763-01	COVER ｶﾊﾞｰ	1		
07AA	1075-0290-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
08AA	4425-3758-01	PAWL ﾂﾒ	1		
09AA	4425-3766-13	PRESSURE SPRING ｱｯｼｭｸｽﾌﾟﾘﾝｸﾞ	1		
10AA	4425-3745-01	HOLDER ﾎﾙﾀﾞｰ	1		
11AA	1075-3760-02	LEVER ﾚﾊﾞｰ	1		
12AA	1075-3762-01	TENSION SPRING ﾋｯﾊﾟﾘｽﾌﾟﾘﾝｸﾞ	1		
13AA	9335-1310-31	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC41,43,44,50)	4		
14AA	1200-5242-16	SHAFT ｼｬﾌﾄ	1		
15AA	4444-3741-01	ACTUATOR ｱｸﾁｪｰﾀｰ	1		
16AA	4444-3743-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
17AA	4444-3744-01	COVER ｶﾊﾞｰ	1		
18AA	4425-3039-01	SHAFT ｼｬﾌﾄ	1		
19AA	4479-7331-02	LABEL ﾗﾍﾞﾙ	1		
20AA	4425-3702-04	COVER ｶﾊﾞｰ	1		
21AA	1075-3742-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
22AA	1100-1340-10	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
23AA	4425-3762-04	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
24AA	1200-5241-11	SHAFT ｼｬﾌﾄ	1		
25AA	4425-3760-02	LOCK PLATE ﾛｯｸﾊﾞﾝ	1		
26AA	4425-3761-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
27AA	4479-0105-01	PW BOARD-H ﾌﾟﾘﾝﾄｷﾊﾞﾝH	1		
28AA	4425-3710-01	GUIDE ｶﾞｲﾄﾞ	2		
29AA	1067-1523-01	RUBBER ｺﾞﾑ	2		
30AA	1075-3751-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
31AA	1075-3714-03	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
32AA	4425-3786-02	SUPPORT PLATE ｻﾎﾟｰﾄﾌﾟﾚｰﾄ	2		
33AA	4425-3701-06	CASSETTE COVER ｶｾｯﾄｶﾊﾞｰ	1		
34AA	1156-6051-01	COVER(WITH SWITCH) ｶﾊﾞｰ(ｽｲｯﾁﾂｷ) PAPER DESCENT ｶｲｼﾞｮ (UN11)	1		
35AA	4425-3703-18	BASE FRAME ﾍﾞｰｽﾌﾚｰﾑ	1		
36AA	4479-3731-01	COVER ｶﾊﾞｰ	1		
37AA	1075-3703-01	COVER ｶﾊﾞｰ	1		
38AA	1075-3701-02	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
39AA	4425-3774-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
40AA	4425-3708-01	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
41AA	1200-2105-07	COLLAR ｶﾗｰ	1		
42AA	1151-3300-01	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	4		
43AA	4479-7303-01	LABEL ﾗﾍﾞﾙ	1		
44AA	4479-6802-01	HARNESS ﾊｰﾈｽ	1		

43 PAPER TRAY UNIT VI(LCC) ペーパートレイユニット VI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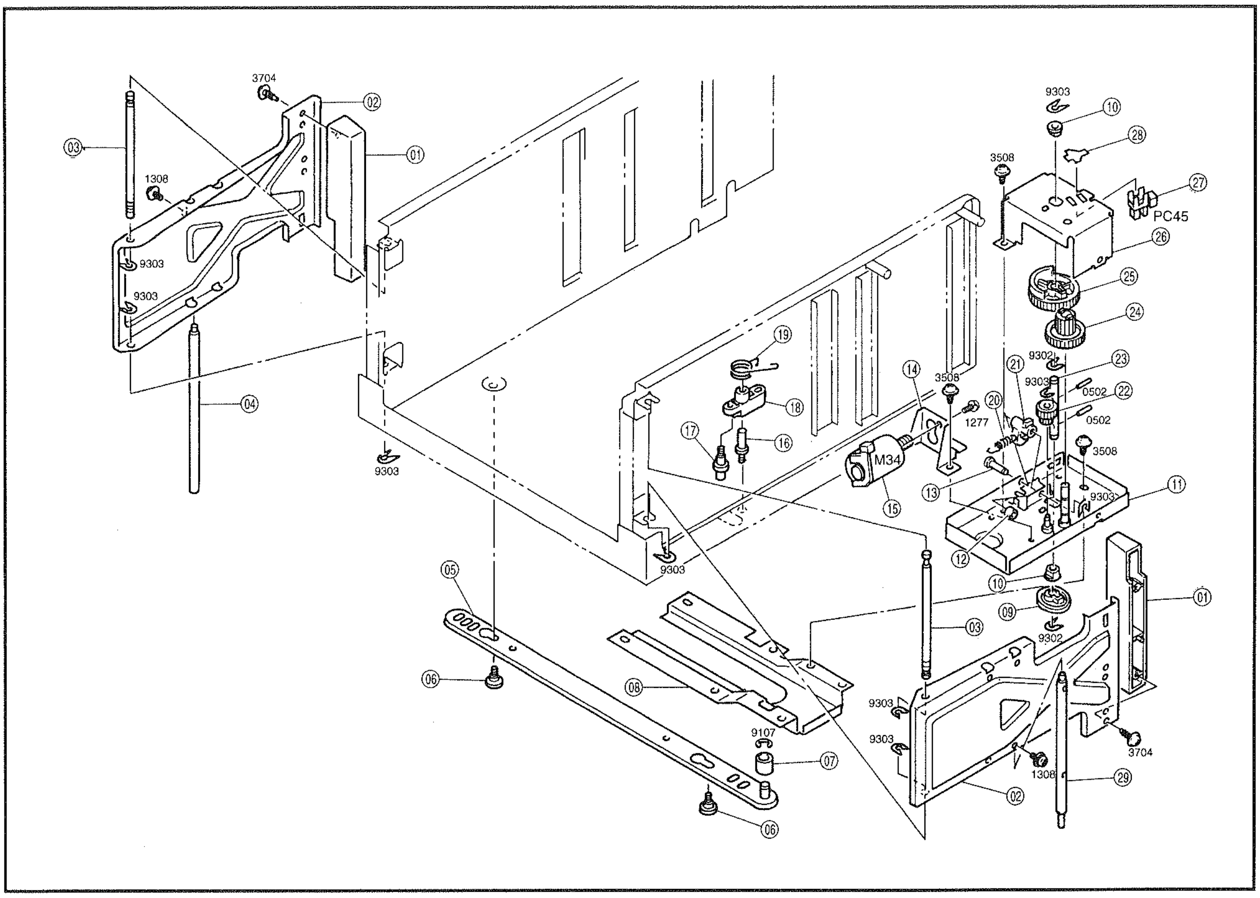
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
01AA	1161-0201-01	FRAME ﾌﾚｰﾑ	1		
02AA	1075-3708-13	HOLDER ﾎﾙﾀﾞｰ	4		
03AA	1075-3707-25	LIFTING PLATE ｵｼｱｹﾞﾊﾞﾝ	1		
04AA	4425-7341-01	LABEL MAX LEVEL ﾗﾍﾞﾙ	1		
05AA	9335-1310-31	PHOTO INTERRUPTER PAPER EMPTY ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｴﾝﾌﾟﾃｨ (PC57)	1		
*06AA	1075-3755-01	SPACER ｽﾍﾟｰｻｰ	2	0400	
07AA	4425-3715-01	WIRE PULLEY ﾜｲﾔｰﾌﾟｰﾘｰ	4		
08AA	4425-3770-01	SUPPORT ｻﾎﾟｰﾄ	4		
09AA	1075-3721-01	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
10AA	4479-7330-01	LABEL ﾗﾍﾞﾙ	1		
11AA	1075-3705-24	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
12AA	1075-3706-24	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
13AA	1200-3134-16	BUSHING ｼﾞｸｳｹ	4		
14AA	4425-3714-01	WIRE PULLEY ﾜｲﾔｰﾌﾟｰﾘｰ	2		
15AA	4425-3733-01	RAIL ﾚｰﾙ	2		
16AA	1273-3003-01	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	4		
17AA	4425-3740-01	ROLL ﾛｰﾙ	4		
18AA	1200-1541-04	WASHER ﾜｯｼｬｰ	1		
19AA	4425-3747-01	TIMING BELT ﾀｲﾐﾝｸﾞﾍﾞﾙﾄ	1		
20AA	4425-3742-02	PULLEY 20T ﾌﾟｰﾘｰ	1		
21AA	4425-0231-01	AXLE PLATE ｼﾞｸﾊﾞﾝ	1		
22AA	4425-3734-02	SLIDER ｽﾗｲﾀﾞｰ	1		
23AA	4425-3735-01	DETECTING PLATE ｹﾝｼｭﾂﾊﾞﾝ	1		
24AA	4425-3741-01	STOP PLATE ｺﾃｲﾊﾞﾝ	1		
25AA	1075-3732-03	ARM ｱｰﾑ	1		
26AA	1200-1566-07	COLLAR ｶﾗｰ	1		
27AA	4425-3743-02	PULLEY 22T ﾌﾟｰﾘｰ	1		
28AA	4479-3744-01	SHAFT ｼｬﾌﾄ	1		
29AA	4425-3744-02	SHAFT ｼｬﾌﾄ	1		
30AA	1075-3720-12	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
31AA	1074-3753-01	TORSION SPRING ﾈｼﾞﾘｽﾌﾟﾘﾝｸﾞ	1		
32AA	4425-3772-01	LEVER ﾚﾊﾞｰ	1		
33AA	1100-1332-05	SHOULDER SCREW ﾀﾞﾝﾈｼﾞ	1		
34AA	4425-3755-03	GEAR 30T ｷﾞｱｰ	1		
35AA	4479-3748-02	GEAR 34T ｷﾞｱｰ	1		
36AA	4479-3745-01	GEAR 14T ｷﾞｱｰ	1		
37AA	4425-0752-01	MOTOR LCC SHIFT ﾓｰﾀｰ LCCｼﾌﾄ (M28)	1		
38AA	4425-3709-02	COVER ｶﾊﾞｰ	1		
39AA	4425-3731-02	BRACKET ﾄﾘﾂｹﾊﾞﾝ	2		
40AA	4425-3754-01	GEAR 18/63T ｷﾞｱｰ	1		
41AA	4425-3723-01	GEAR 16/20T ｷﾞｱｰ	2		
42AA	4425-3729-02	SYNCHRONIZING DISK ｹﾝｼｭﾂﾊﾞﾝ	2		
43AA	4425-3730-01	BRACKET ﾄﾘﾂｹﾊﾞﾝ	2		
44AA	4479-3741-02	GEAR 23/45T ｷﾞｱｰ	1		
45AA	4425-3726-01	GEAR 14/63T ｷﾞｱｰ	1		
46AA	4425-3799-01	CUSHION ｸｯｼｮﾝ	1		
47AA	4425-0753-01	MOTOR LCC ELEVATOR ﾓｰﾀｰ LCCｴﾚﾍﾞｰ (M27)	1		
48AA	9335-1311-01	PHOTO INTERRUPTER ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ (PC55, 56)	2		
49AA	4479-3746-01	GEAR 43T ｷﾞｱｰ	1		
50AA	9335-1311-01	PHOTO INTERRUPTER OVERRUN ﾌｫﾄｲﾝﾀﾗﾌﾟﾀｰ ｵｰﾊﾞｰﾗﾝ (PC42)	1		
51AA	4479-3743-02	REINFORCE PLATE ﾎｷｮｳﾊﾞﾝ	1		
52AA	4479-0203-01	MOUNTING PLATE ﾄﾘﾂｹﾊﾞﾝ	1		
53AA	1075-3704-24	GUIDE PLATE ｶﾞｲﾄﾞﾊﾞﾝ	1		
54AA	1075-3769-01	GROUND PLATE ｱｰｽﾊﾞﾝ	1		
55AA	4479-0201-01	FRONT FRAME ﾏｴﾌﾚｰﾑ	1		
56AA	1075-3719-12	BRACKET ﾄﾘﾂｹﾊﾞﾝ	1		
57AA	4425-0104-02	PW BOARD-E PAPER EMPTY ﾌﾟﾘﾝﾄｷﾊﾞﾝ E ｴﾝﾌﾟﾃｨ (PWB-E)	1		
58AA	1052-5409-01	CORK ｺﾙｸ	1		
*59AA	1075-3709-01	SPACER ｽﾍﾟｰｻｰ	4	2300	
*60AA	4425-7344-01	LABEL A4 ONLY ﾗﾍﾞﾙ A4 ONLY	1	0400	
*60BA	4425-7343-01	LABEL LETTER ONLY ﾗﾍﾞﾙ	1	2300	

44 PAPER TRAY UNIT VII(LCC) ペーパートレイユニット VII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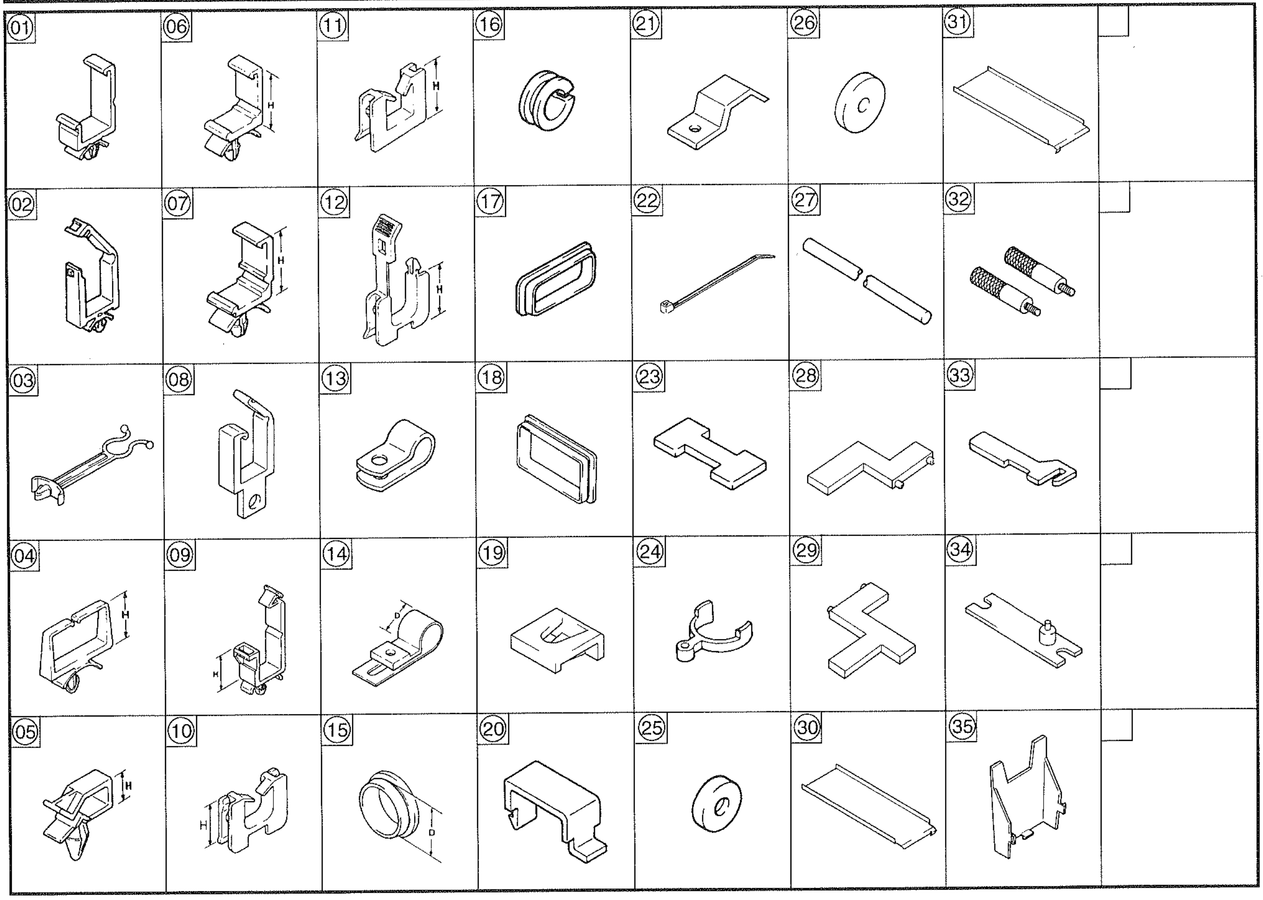
INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS	INDEX	PART NO.	PART NAME	QTY	AREA	REMARKS
*01AA	4479-3702-02	SPACER スペーサー	2	0400							
*01BA	4479-3703-02	SPACER スペーサー	2	2300							
02AA	4479-3701-01	PLATE プレート	2								
03AA	4479-3704-02	SHAFT シャフト	2								
04AA	4479-3705-01	SHAFT シャフト	1								
05AA	4479-0206-02	BRACKET トリツケバン	1								
06AA	1100-1340-10	SHOULDER SCREW ダンネジ	2								
07AA	1200-2346-09	COLLAR カラー	1								
08AA	4479-3711-01	REINFORCE PLATE ホキョウバン	1								
09AA	4479-3714-01	CAM カム	1								
10AA	1200-3120-03	BUSHING ジクウケ	2								
11AA	4479-0207-01	BASE FRAME ベースフレーム	1								
12AA	1200-2105-07	COLLAR カラー	1								
13AA	1200-5242-16	SHAFT シャフト	1								
14AA	4425-3731-02	BRACKET トリツケバン	1								
15AA	4425-0752-01	MOTOR SHIFT GATE モーター シキリバン (M34)	1								
16AA	4479-3709-01	SHOULDER SCREW ダンネジ	1								
17AA	1100-1944-02	SHOULDER SCREW ダンネジ	1								
18AA	4479-3708-01	LEVER レバー	1								
*19AA	4479-3710-02	TORSION SPRING ネジリスプリング	1	0400							
*19BA	1161-3710-01	TORSION SPRING ネジリスプリング	1	2300							
20AA	4479-3717-01	TENSION SPRING ヒッパリスプリング	1								
21AA	4479-3718-01	STOPPER ストッパー	1								
22AA	4425-3723-01	GEAR 16/20T ギアー	1								
23AA	4479-3715-01	SHAFT シャフト	1								
24AA	4425-3726-01	GEAR 14/63T ギアー	1								
25AA	4479-3713-01	GEAR 40T ギアー	1								
26AA	4479-3716-01	REINFORCE PLATE ホキョウバン	1								
27AA	9335-1311-01	PHOTO INTERRUPTER GATE POSITION フォトインタラプター ゲートイチ (PC45)	1								
28AA	1136-2131-03	STOPPER ストッパー	1								
29AA	4479-3706-01	SHAFT シャフト	1								

45 WIRING ACCESSORIES AND JIGS 配線部品•治具



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01AA	9384-1311-01	WIRING SADDLE 27H ﾜｲﾔｰｻﾄﾞﾙ	10		
02AA	9384-1310-11	WIRING SADDLE 5.2H ﾜｲﾔｰｻﾄﾞﾙ	13		
02BA	9384-1110-61	WIRING SADDLE 21.5H ﾜｲﾔｰｻﾄﾞﾙ	17		
03AA	9384-1310-51	WIRING SADDLE ﾜｲﾔｰｻﾄﾞﾙ	2		
03BA	9384-1820-61	LEAD CLAMPER ﾘｰﾄﾞｸﾗﾝﾊﾟｰ	4		
04AA	9384-1310-81	WIRING SADDLE 6.4H ﾜｲﾔｰｻﾄﾞﾙ	121		
05AA	9384-1820-31	WIRING SADDLE 8.0H ﾜｲﾔｰｻﾄﾞﾙ	31		
06AA	9384-1900-53	WIRING SADDLE 18.7H ﾜｲﾔｰｻﾄﾞﾙ	3		
07AA	9384-1900-54	WIRING SADDLE 23.0H ﾜｲﾔｰｻﾄﾞﾙ	2		
07BA	9384-1311-21	WIRING SADDLE 16.8H ﾜｲﾔｰｻﾄﾞﾙ	16		
08AA	9384-1920-71	WIRING SADDLE 18.5H ﾜｲﾔｰｻﾄﾞﾙ	1		
09AA	9384-1921-11	WIRING SADDLE 9.2H ﾜｲﾔｰｻﾄﾞﾙ	1		
09BA	9384-1921-01	WIRING SADDLE 14.4H ﾜｲﾔｰｻﾄﾞﾙ	13		
09CA	9384-1921-21	WIRING SADDLE 36.1H ﾜｲﾔｰｻﾄﾞﾙ	16		
09DA	9384-1921-31	WIRING SADDLE 17.3H ﾜｲﾔｰｻﾄﾞﾙ	4		
10AA	9384-2510-21	EDGE COVER ｴｯｼﾞｶﾊﾞｰ	1		
10BA	9384-2610-11	EDGE COVER 8.5H ｴｯｼﾞｶﾊﾞｰ	1		
11AA	9384-2800-36	EDGE COVER 15H ｴｯｼﾞｶﾊﾞｰ	13		
11BA	9384-2010-21	EDGE COVER 8.5H ｴｯｼﾞｶﾊﾞｰ	63		
12AA	9384-2010-31	EDGE COVER 15.4H ｴｯｼﾞｶﾊﾞｰ	29		
12BA	9384-2010-41	EDGE COVER 25.0H ｴｯｼﾞｶﾊﾞｰ	3		
13AA	9384-1320-81	P-CLIP 8.4D ﾅｲﾛﾝｸﾗﾝﾌﾟ	2		
14AA	9384-1600-04	P-CLIP 5D ｺｰﾄﾞｵｻｴ	1		
14BA	9384-1310-91	WIRING SADDLE 18.5H ﾜｲﾔｰｻﾄﾞﾙ	21		
15AA	0722-4913-01	COLLAR 20D ｶﾗｰ	4		
16AA	1031-4403-01	GROMMET ｴｯｼﾞｶﾊﾞｰ	3		
17AA	1050-4805-01	EDGE COVER ｴｯｼﾞｶﾊﾞｰ	1		
18AA	1052-4301-01	GROMMET ｴｯｼﾞｶﾊﾞｰ	1		
19AA	1075-1756-02	CORD CLAMP ｺｰﾄﾞｸﾗﾝﾌﾟ	1		
20AA	1053-4432-01	CORD CLAMP ｺｰﾄﾞｸﾗﾝﾌﾟ	6		
21AA	1021-4711-01	CORD CLAMP ｺｰﾄﾞｸﾗﾝﾌﾟ	2		
22AA	9384-1311-11	CABLE TIE 104L ｹｯｿｸﾊﾞﾝﾄﾞ	6		
23AA	1067-7901-01	JIG SAFETY SWITCH ｼﾞｸﾞ ｱﾝｾﾞﾝｽｲｯﾁ	1		
24AA	1075-7901-02	JIG CABLE HOLDING ｼﾞｸﾞ ﾜｲﾔｰﾄﾞﾒ	2		
25AA	1075-7902-01	JIG DS ROLL-FNT ｼﾞｸﾞ ﾏｴDSﾛｰﾙ	1		
26AA	1074-7903-02	JIG DS ROLL-RR ｼﾞｸﾞ ｳｼﾛDSﾛｰﾙ	1		
27AA	1031-7922-01	JIG SHAFT ｼﾞｸﾞ ｼｬﾌﾄ	1		
28AA	1075-7904-01	JIG SLIDER-FNT ｼﾞｸﾞ ｽﾗｲﾀﾞｰ ﾏｴ	1		
29AA	1075-7905-01	JIG SLIDER-RR ｼﾞｸﾞ ｽﾗｲﾀﾞｰ ｳｼﾛ	1		
30AA	1075-7804-01	GUIDE RAIL-A ｶﾞｲﾄﾞﾚｰﾙ	1		
31AA	1075-7805-01	GUIDE RAIL-B ｶﾞｲﾄﾞﾚｰﾙ	1		
32AA	1022-7807-01	JIG SET SCREW ｼﾞｸﾞ ｺﾃｲﾈｼﾞ	2		
33AA	1075-7906-01	JIG SAFETY SWITCH ｼﾞｸﾞ ｱﾝｾﾞﾝｽｲｯﾁ	1		
34AA	1036-0242-01	JIG 4TH MIR.POSI. ｼﾞｸﾞ ﾀﾞｲ4ﾐﾗｰｲﾁｷﾞﾒ	1		
35AA	1156-7501-01	HOLDER ﾎﾙﾀﾞｰ	1		

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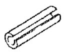
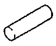
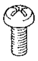
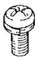
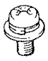
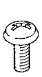
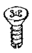
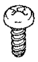
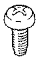
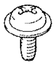
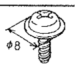
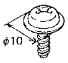
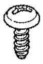
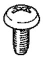
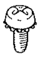
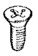
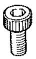
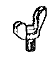
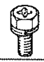
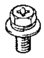
0210 0213	9754-3012-08 9754-3016-08	SPRING ROLL PIN ｽﾌﾟﾘﾝｸﾞﾛｰﾙﾋﾟﾝ	
0501 0502 0507 0509 0510 0516	9752-3016-50 9752-3012-50 9752-2012-01 9752-2012-50 9752-3014-50 9752-2512-50	PIN ﾋﾟﾝ	
1115 1168	9642-0308-13 9642-0408-13	SCREW ｺﾈｼﾞ	
1201 1208 1210 1217 1220 1230 1233 1239 1277	9644-0204-13 9644-0306-13 9644-0308-13 9644-0316-13 9644-0330-13 9644-0408-13 9644-0410-13 9644-0420-13 9644-2606-13	SCREW ｺﾈｼﾞ	
1302 1304 1305 1308 1313 1315 1318 1348 1349	9646-0305-13 9646-0306-07 9646-0306-13 9646-0308-13 9646-0320-13 9646-0406-13 9646-0408-13 9646-0425-13 9646-0306-01	SCREW ｺﾈｼﾞ	
1603 1610 1617 1622 1623 1627 1655 1694 2712	9654-0306-01 9654-0308-03 9654-0316-01 9654-0406-07 9654-0408-01 9654-0408-13 9654-0304-01 9654-0330-01 9654-0318-01	SCREW ｺﾈｼﾞ	
3204	9657-0308-13	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
3303 3305 3311 3319 3331	9732-0306-13 9732-0308-13 9732-0408-13 9732-0412-13 9732-0206-07	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
3402 3403 3410 3411 3424 3434	9733-0306-13 9733-0308-13 9733-0408-13 9733-0410-13 9733-0420-13 9733-0430-13	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
3501 3504 3505 3506 3507 3508 3509 3510 3523 3537 3538	9735-0306-13 9735-0308-13 9735-0310-13 9735-0406-13 9735-0408-07 9735-0408-13 9735-0410-13 9735-0412-13 9735-0416-13 9735-0440-13 9735-0408-14	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
3604	9738-0308-13	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
3701 3702 3703 3704 3705 3709	9739-0408-13 9739-0410-13 9739-0412-13 9739-0308-13 9739-0306-13 9739-0310-13	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
3906 3907 3920 3922	9742-0306-13 9742-0308-13 9742-0408-14 9742-0410-14	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
4001 4005 4011 4012 4020 4023 4024 4026	9743-0408-01 9743-0408-13 9743-0308-13 9743-0306-13 9743-0408-14 9743-0310-01 9743-0410-14 9743-0410-13	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
4305	9770-0408-13	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
4401	9771-0414-14	TAPPING SCREW ﾀｯﾋﾟﾝｸﾞﾈｼﾞ	
5103	9670-0408-08	BOLT ﾎﾞﾙﾄ	
5405	9678-0412-13	BOLT ﾎﾞﾙﾄ	
5504	9731-0525-13	BOLT ﾎﾞﾙﾄ	
5609	9736-0515-13	BOLT ﾎﾞﾙﾄ	
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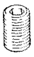
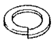
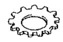
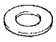
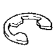
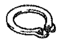
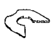
7102 7104 7105 7107 7114	9684-0304-08 9684-0308-08 9684-0404-08 9684-0406-08 9684-0312-08	SET SCREW ﾑｼﾈｼﾞ	
8107	9710-0400-13	SPRING WASHER ｽﾌﾟﾘﾝｸﾞﾜｯｼｬｰ	
8302 8308	9712-0400-13 9712-0600-13	WASHER ﾜｯｼｬｰ	
8402 8403 8506 8510	9715-0300-01 9715-0400-01 9716-0400-01 9716-0600-01	WASHER ﾜｯｼｬｰ	
9102 9105 9107 9109 9112	9721-0200-01 9721-0300-01 9721-0400-01 9721-0500-01 9721-0600-01	RETAINING RING Eﾘﾝｸﾞ	
9201	9722-0600-08	RETAINING RING Cﾘﾝｸﾞ	
9301 9302 9303	1066-1151-01 4425-3001-01 4425-3002-01	RETAINING RING Eﾘﾝｸﾞ	

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1075-1381-01	04	15AA	2	
1075-1392-01	04	12AA	1	
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1075-1512-02	12	18AA	2
1075-1550-05	12	17AA	1
1075-1551-02	12	13AA	6
1075-1554-01	12	14AA	2
1075-1570-01	12	19AA	1
1075-1574-01	12	20AA	1
1075-1602-01	12	06AA	2
1075-1608-01	12	04AA	1
1075-1612-01	12	29AA	2
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1075-1661-01	12	23AA	2
1075-1671-04	12	02AA	2
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1075-1673-01	12	08AA	1
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1075-1957-02	11	62AA	1
1075-1958-01	11	55AA	1
1075-1959-02	03	26AA	1
1075-2003-02	05	35AA	1

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1075-2007-02	13	10AA	1
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1075-2011-01	03	22AA	1
1075-2012-01	04	49AA	1
1075-2013-01	04	34AA	1
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1075-2041-02	06	10AA	2
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1075-2043-01	13	17AA	1
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1075-2054-01	05	25AA	1
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1075-2065-02	04	10AA	1
1075-2071-01	04	19AA	1
1075-2105-02	05	04AA	1
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1075-2113-01	26	10AA	1
1075-2114-01	04	04AA	1
1075-2151-01	05	24AA	1
1075-2152-01	26	07AA	1
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1075-2217-04	06	04AA	4
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1075-2222-02	06	21AA	1
1075-2406-02	37	12AA	1
1075-2408-02	37	08AA	1
1075-2413-02	13	06AA	1
1075-2414-01	03	35AA	1
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1075-2417-02	06	31AA	1
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1075-2419-01	36	23AA	1
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1075-2422-01	06	14AA	1
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1075-2451-01	06	49AA	1
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1075-2533-01	09	03AA	4
1075-2534-01	09	22AA	1
1075-2541-01	23	06AA	1
1075-2552-01	23	07AA	1

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1075-2598-02	08	32AA	1
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1075-2599-01	09	11AA	3
1075-2652-01	08	01AA	1
1075-2653-01	08	24AA	4
1075-2654-01	08	26AA	4
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1075-2859-01	16	14AA	4
1075-3001-02	16	42AA	4
1075-3004-01	16	34AA	4

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1075-3005-02	16	63AA	4
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1075-3015-01	16	43AA	4
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1075-3017-03	16	55AA	4
1075-3019-02	14	15AA	1
1075-3020-03	14	14AA	4
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1075-3051-01	16	33AA	8
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1075-3053-02	16	30AA	4
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1075-3054-01	16	26AA	4
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1075-3066-01	16	05AA	4
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1075-3075-01	09	31AA	4
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1075-3116-02	38	27AA	1
1075-3116-02	39	35AA	1
1075-3117-02	39	31AA	1

PART NO.	FIG.	INDEX	QTY
1075-3117-02	41	40AA	1
1075-3118-02	39	02AA	1
1075-3118-02	41	66AA	1
1075-3119-01	38	28AA	1
1075-3120-01	39	33AA	1
1075-3122-01	39	09AA	1
1075-3124-01	39	47AA	1
1075-3124-01	41	57AA	1
1075-3125-03	39	46AA	1
1075-3125-03	41	56AA	1
1075-3129-01	39	34AA	1
1075-3129-01	41	46AA	1
1075-3130-01	39	22AA	1
1075-3132-03	08	30AA	1
1075-3133-02	39	04AA	1
1075-3134-01	39	19AA	1
1075-3134-01	41	24AA	1
1075-3136-01	09	33AA	4
1075-3140-01	39	21AA	1
1075-3140-01	40	22AA	1
1075-3140-01	41	36AA	1
1075-3141-01	39	17AA	1
1075-3141-01	41	22AA	1
1075-3143-01	38	31AA	1
1075-3144-01	39	36AA	1
1075-3144-01	41	50AA	1
1075-3151-01	38	32AA	1
1075-3151-01	39	05AA	1
1075-3153-02	39	01AA	1
1075-3154-04	38	09AA	1
1075-3154-04	39	49AA	1
1075-3154-04	40	07AA	1
1075-3154-04	41	60AA	1
1075-3158-01	39	45AA	1
1075-3158-01	41	54AA	1
1075-3159-01	39	48AA	1
1075-3159-01	41	58AA	1
1075-3163-03	06	27AA	2
1075-3165-03	08	29AA	2
1075-3166-02	39	43AA	1
1075-3166-02	41	55AA	1
1075-3167-01	06	26AA	2
1075-3167-01	34	33AA	1
1075-3170-01	09	29AA	4
1075-3171-01	09	30AA	4
1075-3172-02	09	28AA	4
1075-3176-03	39	18AA	1
1075-3302-02	14	09AA	1
1075-3303-05	15	24AA	1
1075-3304-01	14	04AA	1
1075-3305-01	15	10AA	1
1075-3306-01	15	20AA	1
1075-3307-01	15	14AA	1
1075-3309-01	15	08AA	1
1075-3310-01	15	40AA	1
1075-3313-01	14	03AA	1
1075-3315-02	15	21AA	1
1075-3318-02	15	47AA	1
1075-3321-01	14	10AA	1
1075-3322-01	14	06AA	1
1075-3323-01	15	09AA	1
1075-3324-01	14	26AA	1
1075-3325-01	14	34AA	1
1075-3326-01	14	31AA	1
1075-3327-01	15	18AA	1
1075-3328-01	15	11AA	1
1075-3332-01	15	30AA	1
1075-3333-01	15	03AA	2
1075-3336-01	15	37AA	1
1075-3337-01	15	35AA	1

PART NO.	FIG.	INDEX	QTY
1075-3338-01	15	27AA	1
1075-3339-01	15	31AA	1
1075-3340-01	15	28AA	1
1075-3351-02	15	42AA	1
1075-3352-02	14	38AA	1
1075-3353-03	14	28AA	1
1075-3354-02	14	39AA	1
1075-3355-02	14	21AA	1
1075-3356-02	15	38AA	1
1075-3357-01	15	16AA	1
1075-3358-02	14	25AA	1
1075-3359-01	14	29AA	2
1075-3360-01	14	35AA	1
1075-3361-01	14	30AA	1
1075-3362-01	14	11AA	1
1075-3363-01	14	01AA	1
1075-3364-01	14	05AA	1
1075-3366-01	15	23AA	1
1075-3373-01	14	27AA	1
1075-3376-01	15	32AA	1
1075-3377-01	14	07AA	2
1075-3378-01	06	02AA	2
1075-3382-01	14	02AA	1
1075-3383-01	15	44AA	1
1075-3385-01	13	31AA	1
1075-3385-01	15	22AA	2
1075-3386-01	14	36AA	1
1075-3387-01	14	42AA	2
1075-3388-01	14	41AA	1
1075-3389-01	15	36AA	1
1075-3390-01	15	34AA	1
1075-3501-02	24	05AA	1
1075-3502-14	24	02AA	1
1075-3505-01	24	29AA	1
1075-3506-01	24	30AA	1
1075-3507-01	24	10AA	1
1075-3508-01	24	01AA	1
1075-3509-01	23	31AA	1
1075-3512-01	06	45AA	1
1075-3513-01	24	22AA	2
1075-3514-02	24	03AA	1
1075-3515-01	24	09AA	2
1075-3518-02	24	13AA	1
1075-3519-02	24	19AA	1
1075-3520-01	24	16AA	1
1075-3551-02	23	36AA	1
1075-3552-01	23	35AA	2
1075-3553-02	23	34AA	1
1075-3555-01	24	26AA	1
1075-3557-01	24	25AA	1
1075-3561-02	23	30AA	1
1075-3562-02	06	47AA	1
1075-3564-01	24	21AA	2
1075-3565-01	26	02AA	1
1075-3566-01	23	21AA	1
1075-3567-01	26	27AA	2
1075-3568-01	23	24AA	1
1075-3569-01	23	25AA	1
1075-3572-01	24	06AA	2
1075-3576-01	24	07AA	2
1075-3577-02	24	28AA	1
1075-3579-01	23	12AA	4
1075-3581-01	23	20AA	1
1075-3582-01	23	29AA	1
1075-3583-01	23	23AA	1
1075-3584-01	24	04AA	2
1075-3601-01	26	32AA	1
1075-3602-02	26	17AA	1
1075-3651-01	26	34AA	1 set
1075-3652-01	26	29AA	2

PART NO.	FIG.	INDEX	QTY
1075-3653-01	26	01AA	1
1075-3654-02	26	03AA	1
1075-3655-01	26	36AA	1
1075-3657-01	26	20AA	1
1075-3658-01	26	30AA	2
1075-3701-02	42	38AA	1
1075-3702-02	42	02AA	2
1075-3703-01	42	37AA	1
1075-3704-24	43	53AA	1
1075-3705-24	43	11AA	1
1075-3706-24	43	12AA	1
1075-3707-25	43	03AA	1
1075-3708-13	43	02AA	4
1075-3709-01	43	59AA	4
1075-3710-01	06	50AA	1
1075-3712-03	42	01AA	1
1075-3713-01	06	24AA	1
1075-3714-03	42	31AA	1
1075-3719-12	43	56AA	1
1075-3720-12	43	30AA	1
1075-3721-01	43	09AA	1
1075-3732-03	43	25AA	1
1075-3742-01	42	21AA	1
1075-3751-02	42	30AA	1
1075-3755-01	43	06AA	2
1075-3760-02	42	11AA	1
1075-3762-01	42	12AA	1
1075-3769-01	43	54AA	1
1075-3803-01	34	05AA	1
1075-3809-01	34	08AA	1
1075-3870-02	34	40AA	1
1075-3871-01	34	42AA	1
1075-3872-01	34	60AA	1
1075-3875-01	34	61AA	1
1075-3880-01	34	41AA	1
1075-3881-01	34	59AA	1
1075-3887-01	28	29AA	1
1075-3901-01	27	24AA	1
1075-3902-03	29	34AA	1
1075-3903-01	29	16AA	1
1075-3913-01	27	17AA	1
1075-3914-02	29	30AA	1
1075-3922-01	30	27AA	1
1075-3923-02	30	39AA	1
1075-3924-02	30	38AA	1
1075-3927-01	28	04AA	1
1075-3928-01	09	23AA	1
1075-3930-01	27	35AA	1
1075-3931-01	27	36AA	1
1075-3932-02	30	47AA	1
1075-3933-01	30	12AA	1
1075-3934-02	30	02AA	1
1075-3935-02	30	43AA	1
1075-3936-01	30	13AA	1
1075-3937-01	27	34AA	1
1075-3955-01	28	15AA	1
1075-3958-01	29	56AA	1
1075-3965-13	27	11AA	1
1075-3966-01	30	40AA	1
1075-3967-01	30	41AA	1
1075-3968-01	27	16AA	1
1075-3969-01	27	05AA	1
1075-3970-02	27	06AA	1
1075-3971-01	27	09AA	1
1075-3972-02	27	10AA	1
1075-3975-01	27	23AA	1
1075-3977-01	30	09AA	1
1075-3978-02	30	03AA	1
1075-3979-01	30	32AA	1
1075-3980-01	27	29AA	1

PART NO.	FIG.	INDEX	QTY
1075-3981-01	30	15AA	1
1075-3982-01	30	18AA	1
1075-3984-01	30	26AA	1
1075-3985-02	27	31AA	1
1075-3986-01	30	25AA	1
1075-3987-01	30	01AA	1
1075-3988-01	30	48AA	1
1075-3989-01	30	42AA	1
1075-3990-01	30	49AA	1
1075-3991-01	30	28AA	1
1075-3992-02	27	12AA	2
1075-3993-02	28	14AA	1
1075-3994-01	29	08AA	1
1075-3995-01	28	02AA	1
1075-3996-01	27	37AA	1
1075-3998-01	29	22AA	1
1075-4004-02	04	01AA	1
1075-4008-01	04	44AA	1
1075-4060-01	04	53AA	1
1075-4061-02	21	06AA	1
1075-4062-01	21	35AA	1
1075-4062-01	25	16AA	1
1075-4072-02	21	29AA	2
1075-4074-12	04	51AA	1
1075-4075-01	04	50AA	1
1075-4101-03	25	03AA	1
1075-4102-01	25	05AA	2
1075-4103-01	25	31AA	2
1075-4104-01	25	34AA	1
1075-4106-13	25	25AA	1
1075-4108-02	25	42AA	1
1075-4110-01	25	08AA	1
1075-4111-01	25	45AA	1
1075-4115-01	25	26AA	1
1075-4122-02	20	49AA	1
1075-4151-06	25	17AA	1
1075-4152-05	25	06AA	1
1075-4154-03	25	20AA	1
1075-4155-04	25	04AA	1
1075-4156-04	25	32AA	1
1075-4157-01	25	24AA	2
1075-4158-01	25	23AA	4
1075-4159-01	25	02AA	1
1075-4160-01	26	15AA	1
1075-4161-02	25	13AA	1
1075-4164-01	25	07AA	1
1075-4166-12	25	27AA	1
1075-4176-01	20	53AA	1
1075-4177-01	20	52AA	1
1075-4178-01	20	37AA	1
1075-4179-01	20	55AA	1
1075-4191-01	26	18AA	1
1075-4203-12	22	36AA	1
1075-4205-01	22	37AA	1
1075-4221-01	22	09AA	1
1075-4241-02	22	31AA	1
1075-4250-01	22	34AA	3
1075-4251-02	22	30AA	1
1075-4252-01	22	22AA	1
1075-4253-02	22	28AA	1
1075-4254-01	22	12AA	1
1075-4271-01	22	41AA	1
1075-4280-03	22	33AA	3
1075-4281-01	22	15AA	1
1075-4301-02	21	38AA	1
1075-4302-01	21	24AA	1
1075-4303-01	21	12AA	1
1075-4304-01	22	19AA	1
1075-4321-02	05	28AA	1
1075-4322-02	05	31AA	1

PART NO.	FIG.	INDEX	QTY
1075-4351-01	21	23AA	1
1075-4353-01	21	11AA	2
1075-4411-02	25	35AA	1
1075-4412-02	25	40AA	1
1075-4413-01	25	41AA	1
1075-4414-01	25	37AA	2
1075-4415-01	25	39AA	1
1075-4462-01	25	38AA	4
1075-4467-02	25	44AA	1
1075-4468-01	26	25AA	1
1075-4471-02	25	43AA	1
1075-4473-01	25	48AA	2
1075-4483-03	25	10AA	1
1075-4484-05	25	14AA	1
1075-4486-03	25	09AA	1
1075-5001-03	19	01AA	1
1075-5002-02	20	19AA	1
1075-5003-13	19	45AA	1
1075-5004-01	19	44AA	1
1075-5005-01	05	16AA	1
1075-5006-03	19	09AA	1
1075-5007-01	19	28AA	1
1075-5044-01	20	07AA	2
1075-5045-01	20	56AA	2
1075-5051-01	20	13AA	1
1075-5052-01	20	15AA	1
1075-5053-01	19	21AA	1
1075-5058-05	19	27AA	1
1075-5059-06	19	20AA	1
1075-5060-05	19	34AA	1
1075-5062-04	20	21AA	1
1075-5063-03	20	03AA	1
1075-5064-01	20	04AA	2
1075-5065-01	19	25AA	1
1075-5066-02	19	39AA	1
1075-5067-02	20	05AA	1
1075-5068-01	05	17AA	1
1075-5069-03	20	01AA	1
1075-5070-01	19	04AA	3
1075-5071-01	19	30AA	2
1075-5071-01	20	06AA	2
1075-5072-01	19	19AA	2
1075-5073-01	19	16AA	1
1075-5075-01	19	22AA	1
1075-5076-01	19	40AA	2
1075-5077-01	19	41AA	2
1075-5078-02	20	12AA	1
1075-5080-01	19	13AA	1
1075-5080-01	20	18AA	1
1075-5082-02	19	10AA	1
1075-5083-01	19	11AA	1
1075-5083-01	20	22AA	1
1075-5086-01	20	17AA	1
1075-5087-01	19	38AA	1
1075-5088-01	19	18AA	1
1075-5089-01	19	24AA	1
1075-5090-01	20	24AA	1
1075-5091-01	20	02AA	1
1075-5094-03	20	08AA	1
1075-5095-01	19	23AA	2
1075-5096-01	20	14AA	1
1075-5097-02	20	25AA	1
1075-5098-01	19	46AA	2
1075-5100-01	19	47AA	1
1075-5101-02	18	11AA	1
1075-5102-01	18	17AA	1
1075-5151-03	18	10AA	1
1075-5153-01	18	09AA	1
1075-5154-01	18	05AA	1
1075-5154-01	19	06AA	1

PART NO.	FIG.	INDEX	QTY
1075-5156-02	18	04AA	1
1075-5157-01	18	12AA	1
1075-5158-02	18	08AA	1
1075-5159-01	18	13AA	1
1075-5160-01	18	06AA	1
1075-5161-01	18	16AA	1
1075-5162-01	18	01AA	1
1075-5163-01	18	18AA	2
1075-5164-01	18	38AA	1
1075-5165-01	18	39AA	1
1075-5166-01	18	20AA	2
1075-5201-01	17	23AA	1
1075-5203-01	17	13AA	1
1075-5204-02	17	01AA	1
1075-5206-01	17	24AA	1
1075-5251-01	17	30AA	1
1075-5252-01	17	12AA	1
1075-5253-02	17	17AA	1
1075-5256-01	17	07AA	1
1075-5260-01	17	28AA	1
1075-5263-01	17	33AA	1
1075-5264-02	17	25AA	1
1075-5271-01	17	19AA	1
1075-5272-01	17	29AA	1
1075-5273-03	17	16AA	1
1075-5281-01	17	11AA	1
1075-5282-02	17	26AA	2
1075-5283-01	17	27AA	1
1075-5284-01	17	22AA	1
1075-5286-01	17	18AA	1
1075-5287-01	17	20AA	1
1075-5505-04	18	23AA	2
1075-5506-01	22	02AA	1
1075-5508-02	04	45AA	1
1075-5509-01	20	33AA	1
1075-5517-02	21	20AA	1
1075-5521-01	20	48AA	1
1075-5551-03	20	47AA	1
1075-5552-03	20	38AA	1
1075-5553-12	20	42AA	1
1075-5554-03	22	01AA	1
1075-5555-01	22	04AA	1
1075-5556-04	22	35AA	1
1075-5557-03	20	44AA	1
1075-5558-01	22	03AA	1
1075-5559-02	22	18AA	1
1075-5560-13	22	07AA	1
1075-5561-02	20	50AA	1
1075-5562-02	20	40AA	1
1075-5563-01	22	39AA	1
1075-5567-01	22	20AA	1
1075-5571-01	20	41AA	1
1075-5572-01	21	19AA	1
1075-5573-01	22	06AA	1
1075-5574-01	21	18AA	1
1075-5580-01	20	29AA	1
1075-5581-01	20	34AA	1
1075-5582-03	20	31AA	1
1075-5583-01	20	36AA	2
1075-5584-01	22	14AA	1
1075-5585-01	20	30AA	1
1075-5586-01	20	32AA	1
1075-5587-01	20	54AA	2
1075-5588-01	22	21AA	3
1075-5603-01	05	12AA	1
1075-5604-01	37	10AA	1
1075-5651-03	05	13AA	1
1075-5652-01	06	09AA	1
1075-5653-01	06	08AA	1
1075-5655-03	06	22AA	1

PART NO.	FIG.	INDEX	QTY
1075-5701-01	32	23AA	1
1075-5702-03	31	16AA	1
1075-5703-01	32	38AA	1
1075-5704-01	32	13AA	1
1075-5707-01	31	08AA	1
1075-5708-03	33	30AA	1
1075-5709-03	04	23AA	1
1075-5710-01	33	08AA	1
1075-5711-02	04	27AA	1
1075-5712-05	32	06AA	1
1075-5713-02	31	23AA	1
1075-5714-02	31	12AA	1
1075-5717-01	33	32AA	2
1075-5718-01	35	35AA	1
1075-5719-05	31	21AA	1
1075-5721-02	35	32AA	1
1075-5722-03	33	01AA	1
1075-5723-01	32	02AA	1
1075-5725-01	32	03AA	1
1075-5726-02	32	42AA	1
1075-5727-01	31	34AA	1
1075-5728-02	32	01AA	1
1075-5730-01	33	42AA	1
1075-5731-01	04	20AA	2
1075-5738-02	35	23AA	1
1075-5739-01	06	25AA	1
1075-5743-03	33	33AA	1
1075-5744-01	33	25AA	1
1075-5745-04	35	28AA	1
1075-5747-02	04	38AA	1
1075-5748-02	35	26AA	1
1075-5749-03	04	18AA	4
1075-5751-01	31	02AA	1
1075-5752-01	31	03AA	1
1075-5753-03	31	35AA	1
1075-5754-01	31	26AA	1
1075-5755-02	32	41AA	1
1075-5756-01	32	37AA	1
1075-5757-01	32	25AA	5
1075-5758-01	32	20AA	1
1075-5760-01	32	14AA	2
1075-5761-02	33	19AA	1
1075-5762-01	31	25AA	1
1075-5764-02	31	24AA	1
1075-5767-01	33	21AA	1
1075-5768-01	32	27AA	1
1075-5769-01	33	28AA	1
1075-5771-01	32	16AA	2
1075-5772-01	32	19AA	2
1075-5776-01	31	29AA	2
1075-5779-01	31	09AA	2
1075-5781-01	31	28AA	1
1075-5784-05	33	18AA	1
1075-5785-03	32	43AA	1
1075-5786-03	32	21AA	1
1075-5787-01	31	07AA	1
1075-5789-01	33	04AA	2
1075-5790-02	35	33AA	1
1075-5792-03	35	36AA	1
1075-5795-01	31	04AA	2
1075-5796-01	32	36AA	1
1075-5797-01	04	39AA	1
1075-5798-01	31	19AA	5
1075-5799-01	35	29AA	1
1075-5800-01	32	34AA	2
1075-5802-01	31	27AA	1
1075-5803-01	35	22AA	1
1075-5804-02	33	39AA	1
1075-5805-02	33	31AA	1
1075-5806-02	32	40AA	1

PART NO.	FIG.	INDEX	QTY
1075-5808-01	32	17AA	1
1075-5809-02	33	37AA	1
1075-5810-01	32	31AA	1
1075-5811-02	31	18AA	1
1075-5812-01	32	44AA	3
1075-5814-01	31	01AA	1
1075-5818-01	32	10AA	1
1075-5851-01	35	27AA	1
1075-5853-01	32	33AA	1
1075-5854-01	32	32AA	1
1075-5856-01	32	18AA	1
1075-5858-01	33	34AA	1
1075-5859-02	33	22AA	1
1075-5860-01	04	29AA	1
1075-5860-01	35	37AA	1
1075-5861-01	04	33AA	1
1075-5862-01	35	38AA	1
1075-5863-01	33	45AA	1
1075-6054-04	19	26AA	1
1075-6501-01	05	29AA	1
1075-6807-04	32	30AA	1
1075-6812-03	03	31AA	1
1075-6813-03	10	11AA	1
1075-6814-02	10	23AA	1
1075-6817-02	33	35AA	1
1075-6822-02	16	19AA	4
1075-6826-02	15	13AA	1
1075-6828-02	18	27AA	1
1075-6829-13	22	10AA	1
1075-6830-02	19	05AA	1
1075-6832-02	11	01AA	1
1075-6835-03	28	03AA	1
1075-6836-02	28	20AA	1
1075-6837-04	29	01AA	1
1075-6866-03	05	01AA	1
1075-6867-02	01	04AA	1
1075-6870-02	21	33AA	1
1075-6871-03	04	56AA	1
1075-6871-03	17	02AA	2
1075-6872-01	09	35AA	4
1075-6872-01	11	17AA	2
1075-6872-01	17	10AA	1
1075-6874-01	19	08AA	1
1075-6878-03	03	17AA	1
1075-6881-01	37	06AA	1
1075-6883-01	29	45AA	1
1075-6889-01	28	17AA	1
1075-6890-01	11	16AA	1
1075-7318-01	01	05AA	1
1075-7321-01	33	24AA	1
1075-7322-01	23	41AA	1
1075-7323-01	24	27AA	1
1075-7324-01	23	42AA	1
1075-7325-01	16	44AA	4
1075-7345-01	13	60AA	1
1075-7345-01	18	36AA	1
1075-7369-01	31	17AA	1
1075-7370-01	31	17BA	1
1075-7371-01	38	36AA	1
1075-7371-01	39	56AA	1
1075-7371-01	40	12AA	1
1075-7371-01	41	15AA	1
1075-7801-01	01	02AA	1
1075-7802-01	01	20AA	1
1075-7803-01	01	15AA	1
1075-7804-01	45	30AA	1
1075-7805-01	45	31AA	1
1075-7820-01	13	62AA	2
1075-7901-02	45	24AA	2
1075-7902-01	45	25AA	1

PART NO.	FIG.	INDEX	QTY
1075-7904-01	45	28AA	1
1075-7905-01	45	29AA	1
1075-7906-01	45	33AA	1
1076-1365-01	03	02AA	2
1076-2541-01	07	04AA	1
1076-3109-01	16	53AA	8
1076-3109-01	24	12AA	2
1076-3906-01	29	09AA	1
1076-3906-01	30	45AA	1
1076-5902-01	31	06AA	1
1076-5905-01	31	33AA	1
1076-7406-01	02	14AA	1
1077-3101-02	23	40AA	2
1079-5530-01	33	14AA	2
1080-1401-03	10	25AA	1
1100-1321-03	04	37AA	2
1100-1321-12	04	43AA	2
1100-1321-12	05	03AA	2
1100-1321-13	34	36AA	1
1100-1322-04	31	30AA	1
1100-1330-11	09	17AA	1
1100-1331-07	33	05AA	1
1100-1332-05	43	33AA	1
1100-1332-06	16	58AA	8
1100-1332-14	15	43AA	2
1100-1332-14	29	15AA	1
1100-1335-03	09	25AA	2
1100-1340-05	31	11AA	2
1100-1340-05	34	44AA	1
1100-1340-09	29	51AA	1
1100-1340-09	39	44AA	1
1100-1340-09	41	59AA	1
1100-1340-10	15	29AA	1
1100-1340-10	35	06AA	1
1100-1340-10	42	22AA	1
1100-1340-10	44	06AA	2
1100-1340-14	33	38AA	1
1100-1341-04	33	03AA	3
1100-1341-05	21	26AA	2
1100-1341-05	34	62AA	1
1100-1341-07	30	08AA	2
1100-1342-08	20	26AA	2
1100-1362-11	04	47AA	2
1100-1431-01	20	51AA	2
1100-1901-01	22	29AA	1
1100-1935-01	21	15AA	1
1100-1944-02	44	17AA	1
1100-3130-08	20	43AA	4
1100-3135-02	06	41AA	1
1100-3190-01	13	43AA	1
1129-2021-01	33	17AA	1
1129-5002-01	33	47AA	2
1129-5003-01	33	48AA	2
1129-5004-01	33	49AA	2
1129-7303-01	01	24AA	1
1129-7303-01	05	15AA	1
1129-7303-01	13	15AA	1
1129-7303-01	18	30AA	1
1129-7303-01	25	30AA	1
1129-7303-01	26	23AA	1
1129-7303-01	37	04AA	1
1134-0107-01	39	20AA	1
1134-0107-01	41	27AA	1
1134-0108-02	41	69AA	1
1134-3030-01	39	24AA	1
1134-3030-01	41	41AA	1
1134-5154-02	18	15AA	1
1136-0108-03	11	37AA	1
1136-0122-03	03	18AA	1
1136-1030-01	02	15AA	1

PART NO.	FIG.	INDEX	QTY
1136-1901-01	13	30AA	1
1136-2131-03	04	55AA	1
1136-2131-03	09	36AA	4
1136-2131-03	16	65AA	20
1136-2131-03	25	49AA	1
1136-2131-03	30	50AA	2
1136-2131-03	34	30AA	1
1136-2131-03	39	55AA	1
1136-2131-03	41	67AA	1
1136-2131-03	42	04AA	2
1136-2131-03	44	28AA	1
1136-2530-02	08	33AA	1
1136-2532-01	08	02AA	2
1136-3149-01	15	39AA	1
1136-4510-01	06	19AA	1
1136-4511-01	06	15AA	1
1136-6840-01	13	54AA	1
1139-0118-03	13	49AA	1
1139-0420-01	14	13AA	1
1139-0420-01	24	24AA	1
1139-1015-01	02	31AA	1
1139-1035-01	01	44AA	1
1139-1044-01	02	03AA	5
1139-1330-01	13	56AA	1
1139-1701-04	01	37AA	1
1139-1702-02	01	43AA	1
1139-1703-02	01	40AA	3
1139-1704-02	01	38AA	1
1139-1705-01	01	36AA	2
1139-1706-01	01	41AA	1
1139-1721-01	13	08AA	1
1139-1722-02	13	07AA	1
1139-1724-01	13	05AA	1
1139-1725-01	13	04AA	1
1139-1726-02	13	03AA	1
1139-1728-01	01	42AA	1
1139-1904-02	03	09AA	2
1139-1905-01	02	24AA	1
1139-1906-01	02	08AA	1
1139-1907-01	01	01AA	2
1139-1909-01	03	08AA	1
1139-1915-02	02	07AA	1
1139-1916-03	13	27AA	1
1139-1917-03	13	24AA	1
1139-1919-02	13	23AA	2
1139-1920-01	13	25AA	1
1139-1921-01	13	28AA	1
1139-1922-02	13	21AA	1
1139-1923-01	13	22AA	1
1139-3102-01	34	16AA	6
1139-3118-01	34	15AA	2
1139-3318-01	15	26AA	1
1139-3322-01	15	49AA	2
1139-3346-02	15	51AA	1
1139-3348-02	15	01AA	1
1139-3349-01	15	45AA	1
1139-3354-01	15	25AA	1
1139-3367-01	15	33AA	1
1139-3368-01	15	04AA	2
1139-3369-01	15	48AA	2
1139-3370-01	15	52AA	1
1139-4067-01	25	11AA	2
1139-4068-01	25	12AA	2
1139-4257-01	21	03AA	4
1139-4260-01	21	04AA	4
1139-4263-01	21	30AA	2
1139-7328-01	01	30AA	1
1139-7347-01	01	19AA	1
1139-7360-01	14	44AA	1
1140-3802-01	33	23AA	1

PART NO.	FIG.	INDEX	QTY
1145-5801-01	31	31AA	1
1149-0116-02	01	23AA	1
1149-0117-02	01	23BA	1
1149-0118-02	01	23CA	1
1149-3404-01	40	29AA	1
1149-3404-01	41	34AA	1
1149-3405-01	40	20AA	1
1149-3405-01	41	32AA	1
1149-3406-01	40	28AA	1
1149-3406-01	41	31AA	1
1149-3407-01	40	19AA	1
1149-3407-01	41	30AA	1
1149-3411-02	40	18AA	1
1149-3411-02	41	29AA	1
1149-3479-01	34	14AA	3
1151-0173-01	02	25AA	1
1151-0174-01	02	25BA	1
1151-0175-01	02	25CA	1
1151-1901-01	02	06AA	1
1151-1902-01	02	06BA	1
1151-1903-01	02	06CA	1
1151-1918-01	13	29AA	1
1151-3151-01	38	26AA	1
1151-3151-01	40	39AA	1
1151-3300-01	42	42AA	4
1151-7371-01	38	24AA	1
1151-7372-01	38	24BA	1
1151-7372-01	39	39AA	1
1156-0102-02	13	39AA	1
1156-0109-01	13	38AA	1
1156-0119-02	01	23DA	1
1156-1027-01	13	42AA	1
1156-6051-01	39	40AA	1
1156-6051-01	41	51AA	1
1156-6051-01	42	34AA	1
1156-7501-01	45	35AA	1
1161-0101-02	13	51AA	1
1161-0103-01	37	09AA	1
1161-0104-01	36	13AA	1
1161-0105-02	36	13BA	1
1161-0106-01	37	17AA	1
1161-0107-01	28	19AA	1
1161-0120-01	25	46AA	1
1161-0125-01	24	11AA	1
1161-0126-01	34	25AA	1
1161-0201-01	43	01AA	1
1161-0202-02	40	50AA	1
1161-0202-02	41	11AA	1
1161-0203-01	39	53AA	1
1161-0203-01	41	64AA	1
1161-0204-02	34	02AA	1
1161-0205-02	34	31AA	1
1161-0206-02	34	35AA	1
1161-0224-01	23	37AA	1
1161-0226-01	14	40AA	1
1161-0232-02	17	37AA	1
1161-0236-01	04	48AA	1
1161-0238-01	06	05AA	1
1161-0240-01	23	15AA	1
1161-0252-01	32	07AA	1
1161-0256-01	07	25AA	1
1161-0257-01	07	13AA	1
1161-0268-01	28	27AA	1
1161-0278-02	33	02AA	1
1161-0280-01	35	10AA	1
1161-0316-01	31	36AA	1
1161-0317-01	31	36BA	1
1161-0318-01	31	36CA	1
1161-0369-01	21	41AA	1
1161-0374-01	20	59AA	1

PART NO.	FIG.	INDEX	QTY
1161-0392-01	27	39AA	1
1161-1004-01	02	10AA	1
1161-1013-01	01	14AA	1
1161-1014-01	01	18AA	1
1161-1021-01	13	52AA	1
1161-1051-01	01	31BA	1
1161-1052-01	02	32AA	1
1161-1055-01	01	08AA	1
1161-1056-01	01	34AA	1
1161-1073-01	02	30AA	1
1161-1340-01	03	32AA	1
1161-1341-01	03	40AA	2
1161-1605-01	12	09AA	1
1161-1654-01	12	05AA	1
1161-1670-01	12	30AA	1
1161-2002-02	04	03AA	1
1161-2014-02	05	34AA	1
1161-2031-01	18	26AA	1
1161-2032-01	18	22AA	1
1161-2037-01	18	40AA	1
1161-2222-01	06	52AA	1
1161-2403-03	36	07AA	1
1161-2407-01	13	16AA	1
1161-2410-02	37	14AA	1
1161-2411-01	13	55AA	1
1161-2420-01	06	53AA	1
1161-2431-12	36	19AA	1
1161-2432-02	36	20AA	1
1161-2433-02	36	31AA	1
1161-2434-12	36	12AA	1
1161-2435-12	36	18AA	1
1161-2437-01	36	08AA	1
1161-2438-01	36	09AA	1
1161-2441-02	36	31BA	1
1161-2443-01	13	61AA	1
1161-2546-01	35	41AA	1
1161-2547-01	35	03AA	1
1161-2549-01	35	02AA	1
1161-2550-01	35	43AA	1
1161-2551-01	23	08AA	1
1161-2571-01	35	15AA	1
1161-2572-01	35	04AA	1
1161-2574-01	35	01AA	1
1161-2577-01	35	12AA	1
1161-2581-01	35	44AA	1
1161-2584-01	26	38AA	1
1161-2587-01	35	14AA	1
1161-2752-02	07	27AA	1
1161-2765-01	07	22AA	1
1161-2774-01	07	31AA	1
1161-2776-01	07	27BA	1
1161-2777-01	07	32AA	1
1161-2778-01	07	30AA	1
1161-3018-01	16	66AA	12
1161-3102-02	40	11AA	1
1161-3102-02	41	14AA	1
1161-3103-01	40	13AA	1
1161-3103-01	41	16AA	1
1161-3105-01	40	15AA	1
1161-3105-01	41	18AA	1
1161-3109-01	40	27AA	1
1161-3109-01	41	33AA	1
1161-3110-02	40	31AA	1
1161-3110-02	41	38AA	1
1161-3112-02	40	36AA	1
1161-3112-02	41	45AA	1
1161-3113-02	40	34AA	2
1161-3113-02	41	43AA	2
1161-3114-01	40	33AA	1
1161-3114-01	41	42AA	1

PART NO.	FIG.	INDEX	QTY
1161-3115-01	40	44AA	1
1161-3115-01	41	03AA	1
1161-3116-01	40	49AA	1
1161-3116-01	41	63AA	1
1161-3117-01	41	68AA	1
1161-3118-01	41	28AA	1
1161-3119-02	41	47AA	1
1161-3120-02	40	51AA	2
1161-3120-02	41	09AA	2
1161-3121-01	40	30AA	1
1161-3121-01	41	39AA	1
1161-3122-01	36	29AA	1
1161-3123-01	16	70AA	1
1161-3124-01	16	68AA	1
1161-3125-02	16	72AA	1
1161-3126-01	16	71AA	1
1161-3127-01	40	17AA	1
1161-3127-01	41	25AA	1
1161-3128-01	40	43AA	1
1161-3128-01	41	04AA	1
1161-3129-01	40	46AA	1
1161-3129-01	41	02AA	1
1161-3130-01	40	05AA	1
1161-3131-02	40	06AA	1
1161-3132-02	40	40AA	1
1161-3132-02	41	65AA	1
1161-3133-01	39	51AA	1
1161-3133-01	41	61AA	1
1161-3135-01	16	73AA	1
1161-3140-01	41	01AA	1
1161-3142-01	40	09AA	1
1161-3142-01	41	23AA	1
1161-3143-01	40	47AA	1
1161-3144-01	41	70AA	1
1161-3145-01	38	38AA	1
1161-3145-01	40	53AA	1
1161-3312-01	06	43AA	1
1161-3341-01	14	45AA	1
1161-3710-01	44	19BA	1
1161-3804-01	34	06AA	2
1161-3808-01	34	20AA	1
1161-3812-01	34	47AA	1
1161-3816-02	34	53AA	1
1161-3817-02	34	58AA	1
1161-3818-02	34	51AA	1
1161-3819-01	34	19AA	1
1161-3823-02	34	03AA	1
1161-3824-01	34	01AA	2
1161-3825-01	34	27AA	1
1161-3827-01	34	11AA	3
1161-3836-01	34	45AA	1
1161-3837-01	34	21AA	2
1161-3838-01	34	22AA	1
1161-3843-01	34	26AA	1
1161-3844-01	34	52AA	2
1161-3846-02	34	38AA	1
1161-3851-01	34	54AA	3
1161-3852-01	34	50AA	1
1161-3853-01	34	13AA	4
1161-3865-01	34	07AA	1
1161-3885-01	28	21AA	1
1161-3886-01	28	26AA	1
1161-3888-01	28	25AA	1
1161-3891-01	28	13AA	1
1161-3938-01	28	12AA	1
1161-3956-01	28	30AA	1
1161-4001-01	21	07AA	1
1161-4002-01	05	11AA	2
1161-4005-01	04	57AA	1
1161-4051-01	21	36AA	1

PART NO.	FIG.	INDEX	QTY
1161-4052-02	21	08AA	1
1161-4053-01	21	31AA	2
1161-4056-01	05	18AA	1
1161-4058-01	21	25AA	2
1161-4063-01	21	02AA	1
1161-4073-01	04	54AA	1
1161-4081-02	21	01AA	1
1161-4082-01	21	37AA	1
1161-4083-01	21	32AA	1
1161-4084-01	21	27AA	1
1161-4085-01	21	28AA	1
1161-4086-01	21	09AA	1
1161-4087-01	21	10AA	1
1161-4123-01	20	57AA	1
1161-4180-01	20	58AA	1
1161-4352-01	21	13AA	1
1161-4464-02	18	21AA	1
1161-4481-01	21	05AA	1
1161-5220-01	17	46AA	1
1161-5254-01	17	36AA	1
1161-5258-01	17	32AA	1
1161-5262-01	17	21AA	1
1161-5290-02	17	45AA	1
1161-5291-02	17	44AA	1
1161-5292-02	17	40AA	1
1161-5293-02	17	38AA	1
1161-5294-02	17	41AA	1
1161-5295-02	17	42AA	1
1161-5602-01	06	12AA	1
1161-5606-01	06	20AA	1
1161-5716-01	04	22AA	1
1161-5720-01	32	11AA	1
1161-5759-01	33	11AA	1
1161-5766-01	32	12AA	1
1161-5773-01	32	15AA	1
1161-5855-01	32	09AA	1
1161-5876-01	33	06AA	1
1161-5877-01	33	13AA	1
1161-6053-01	13	14AA	1
1161-6601-02	13	50AA	1
1161-6620-02	13	13AA	1
1161-6621-02	13	13BA	1
1161-6622-01	13	13CA	1
1161-6623-01	13	13DA	1
1161-6751-01	36	21AA	2
1161-6801-02	37	02AA	1
1161-6802-02	13	47AA	1
1161-6803-01	36	06AA	1
1161-6805-01	39	38AA	1
1161-6805-01	41	48AA	1
1161-6806-01	39	57AA	1
1161-6806-01	41	26AA	1
1161-6807-01	42	03AA	1
1161-6808-02	09	01BA	1
1161-6809-02	09	01AA	1
1161-6810-01	09	01CA	1
1161-6812-01	36	24AA	1
1161-6813-01	24	15AA	1
1161-6814-01	26	19AA	1
1161-6816-01	34	29AA	1
1161-6817-01	06	06AA	1
1161-6818-01	25	47AA	1
1161-6819-01	05	10AA	1
1161-6821-01	04	25AA	1
1161-6823-01	36	16AA	1
1161-6824-01	36	16BA	1
1161-6827-01	36	03AA	1
1161-6831-01	06	16BA	1
1161-6836-02	04	02AA	1
1161-6847-01	03	15AA	2

PART NO.	FIG.	INDEX	QTY
1161-6847-01	23	33AA	1
1161-6848-01	13	34AA	1
1161-6852-01	06	01AA	1
1161-6853-02	13	54BA	1
1161-6857-01	06	16AA	1
1161-7301-01	01	06AA	1
1161-7306-01	27	27AA	1
1161-7308-01	40	41AA	1
1161-7308-01	41	71AA	1
1161-7316-01	14	43AA	1
1161-7317-01	14	43BA	1
1161-7320-01	04	36AA	1
1161-7326-01	27	26AA	1
1161-7327-01	29	10AA	1
1161-7328-01	30	46AA	1
1161-7329-01	01	29AA	1
1161-7331-01	01	03AA	1
1161-7333-01	01	22AA	1
1161-7334-01	01	22BA	1
1161-7339-01	01	22CA	1
1161-7346-01	34	12AA	1
1162-3930-01	27	38AA	2
1200-1132-01	34	48AA	2
1200-1232-01	22	38AA	1
1200-1302-01	29	57AA	1
1200-1331-06	18	37AA	1
1200-1341-03	20	09AA	2
1200-1346-01	23	22AA	1
1200-1346-12	11	07AA	3
1200-1442-03	17	43AA	1
1200-1541-04	43	18AA	1
1200-1542-01	27	04AA	1
1200-1542-02	33	10AA	2
1200-1562-02	33	46AA	2
1200-1566-03	14	17AA	2
1200-1566-04	19	02AA	2
1200-1566-04	34	43AA	2
1200-1566-04	35	19AA	1
1200-1566-06	11	64AA	1
1200-1566-07	43	26AA	1
1200-1646-03	16	25AA	8
1200-1646-03	28	16AA	2
1200-1646-03	30	30AA	2
1200-2105-05	04	28AA	1
1200-2105-05	06	13AA	1
1200-2105-05	14	33AA	1
1200-2105-05	15	46AA	1
1200-2105-05	24	17AA	2
1200-2105-05	35	34AA	1
1200-2105-07	02	22AA	4
1200-2105-07	16	07AA	12
1200-2105-07	22	11AA	1
1200-2105-07	29	20AA	2
1200-2105-07	30	11AA	3
1200-2105-07	33	36AA	1
1200-2105-07	34	18AA	1
1200-2105-07	42	41AA	1
1200-2105-07	44	12AA	1
1200-2121-10	22	40AA	1
1200-2125-01	31	15AA	2
1200-2125-01	32	22AA	1
1200-2346-09	22	25AA	1
1200-2346-09	44	07AA	1
1200-2366-02	04	32AA	1
1200-3120-03	44	10AA	2
1200-3131-07	38	10AA	1
1200-3131-07	40	08AA	1
1200-3134-08	07	12AA	2
1200-3134-15	31	14AA	2
1200-3134-16	08	04AA	2

PART NO.	FIG.	INDEX	QTY
1200-3134-16	29	52AA	1
1200-3134-16	30	05AA	2
1200-3134-16	34	04AA	2
1200-3134-16	35	31AA	2
1200-3134-16	43	13AA	4
1200-3202-06	22	24AA	2
1200-3205-02	26	33AA	2
1200-3211-08	18	07AA	2
1200-3221-04	11	35AA	1
1200-3221-07	08	06AA	4
1200-3221-07	15	15AA	1
1200-3221-07	16	08AA	8
1200-3221-07	23	17AA	2
1200-3221-12	29	05AA	1
1200-3225-07	23	18AA	4
1200-3225-11	15	12AA	1
1200-3225-11	16	36AA	4
1200-3225-11	30	29AA	1
1200-3235-04	23	38AA	2
1200-5116-06	31	22AA	1
1200-5201-01	22	13AA	1
1200-5211-08	29	18AA	1
1200-5211-08	30	17AA	2
1200-5212-04	06	18AA	1
1200-5212-04	16	38AA	12
1200-5212-04	30	16AA	1
1200-5212-04	34	55AA	1
1200-5213-01	04	30AA	1
1200-5213-01	33	40AA	1
1200-5213-01	35	39AA	1
1200-5213-03	24	08AA	2
1200-5235-12	32	26AA	1
1200-5241-11	42	24AA	1
1200-5242-16	42	14AA	1
1200-5242-16	44	13AA	1
1259-4404-01	16	32AA	8
1259-4404-01	30	37AA	1
1273-2014-01	27	22AA	2
1273-2014-01	38	20AA	2
1273-2014-01	39	27AA	2
1273-2014-01	40	25AA	2
1273-2014-01	41	06AA	2
1273-2016-01	27	21AA	2
1273-2016-01	38	16AA	2
1273-2016-01	39	26AA	2
1273-2016-01	40	24AA	2
1273-2016-01	41	05AA	2
1273-2017-01	27	20AA	2
1273-2017-01	38	15AA	2
1273-2017-01	39	28AA	2
1273-2017-01	40	26AA	2
1273-2017-01	41	07AA	2
1273-2539-01	29	36AA	2
1273-2539-01	34	34AA	1
1273-2543-01	35	13AA	1
1273-3002-01	27	02AA	2
1273-3002-01	29	50AA	2
1273-3002-01	38	11AA	2
1273-3002-01	39	07AA	2
1273-3002-01	40	03AA	2
1273-3002-01	41	20AA	2
1273-3003-01	27	01AA	2
1273-3003-01	38	12AA	2
1273-3003-01	39	06AA	2
1273-3003-01	40	02AA	2
1273-3003-01	41	19AA	2
1273-3003-01	43	16AA	4
1273-3035-01	16	57AA	4
1273-3039-01	38	07AA	1
1273-3043-01	38	34AA	2

PART NO.	FIG.	INDEX	QTY
1273-3043-01	40	48AA	2
1273-3052-01	27	14AA	1
1273-3052-01	38	02AA	1
1273-3052-01	39	13AA	1
1273-3052-01	40	10AA	1
1273-3052-01	41	13AA	1
1273-3055-01	27	03AA	2
1273-3055-01	38	37AA	2
1273-3055-01	39	16AA	2
1273-3055-01	40	16AA	2
1273-3055-01	41	21AA	2
1273-3058-01	38	06AA	1
1273-3058-01	40	04AA	1
1273-3079-01	38	04AA	1
1273-3079-01	39	08AA	1
1273-3079-01	40	01AA	1
1273-3079-01	41	12AA	1
1273-3080-02	16	46AA	4
1273-3505-01	16	09AA	8
1273-3505-01	23	11AA	2
1273-3516-01	16	13AA	8
1273-3516-01	29	35AA	2
1274-2611-01	15	07AA	4
1274-2611-01	16	24AA	20
1274-2611-01	28	05AA	2
1274-2611-01	30	24AA	5
1274-3103-01	41	17AA	2
1274-3103-02	16	54AA	8
1274-3103-02	38	05AA	2
1274-3103-02	39	15AA	2
1274-3103-02	40	14AA	2
1274-3602-02	16	45AA	4
1274-3603-01	29	06AA	1
1274-3604-01	30	07AA	2
1274-3605-01	16	11AA	8
1274-3606-02	16	03AA	4
1274-3607-01	16	02AA	4
1274-7305-01	02	13AA	1
1279-3406-01	19	12AA	1
1279-3406-01	20	20AA	1
1300-3122-27	23	39AA	1
1300-3142-04	19	32AA	1
1300-3212-27	23	43AA	1
1300-3232-48	19	07AA	1
1300-3241-08	18	03AA	1
1300-3312-08	19	35AA	1
1300-3312-15	19	03AA	2
1300-3312-15	34	39AA	1
1300-3322-17	08	17AA	2
1300-3332-08	09	10AA	2
1300-3332-08	23	09AA	1
1300-3342-21	19	15AA	1
1300-4342-03	26	31AA	2
1300-4342-07	35	21AA	1
1300-4394-26	33	15AA	2
1400-1124-08	01	26AA	1
1400-1124-08	19	14AA	1
1400-1124-08	21	40AA	2
1400-1124-08	25	33AA	1
1400-1126-01	20	27AA	2
1400-1134-02	09	24AA	2
1400-1154-03	21	39AA	1
1400-1154-06	21	16AA	1
1400-1155-15	16	61AA	4
1400-1155-15	27	33AA	1
1400-1163-08	30	04AA	1
1400-1167-05	25	22AA	1
1400-1174-02	11	24AA	1
1400-1174-02	32	08AA	1
1400-1195-06	07	08AA	2

PART NO.	FIG.	INDEX	QTY
1400-1269-12	33	12AA	2
1400-2110-01	25	18AA	2
1400-2164-20	11	40AA	1
1400-2241-05	35	40AA	1
1400-2242-04	16	69AA	1
1400-2242-04	40	52AA	1
1400-2242-04	41	10AA	1
1400-2502-11	30	06AA	2
1400-2512-15	23	27AA	2
1400-2521-07	31	13AA	2
1400-2965-03	11	29AA	1
1400-3354-34	16	37AA	4
1400-3356-14	04	31AA	1
1500-2513-18	35	09AA	1
1500-2610-18	08	27AA	1
1500-2640-04	04	40AA	1
1500-2640-04	06	39AA	1
1500-2640-04	13	36AA	1
1500-2640-04	17	39AA	1
1500-2640-04	34	32AA	1
1500-2640-07	29	42AA	1
4102-3149-01	34	09AA	4
4425-0104-02	39	10AA	1
4425-0104-02	43	57AA	1
4425-0202-01	28	11AA	1
4425-0203-01	28	23AA	1
4425-0231-01	43	21AA	1
4425-0752-01	43	37AA	1
4425-0752-01	44	15AA	1
4425-0753-01	43	47AA	1
4425-3039-01	42	18AA	1
4425-3103-12	34	10AA	12
4425-3256-03	38	22AA	1
4425-3256-03	39	41AA	1
4425-3256-03	40	37AA	1
4425-3256-03	41	52AA	1
4425-3259-01	38	23AA	1
4425-3259-01	40	38AA	1
4425-3701-06	42	33AA	1
4425-3702-04	42	20AA	1
4425-3703-18	42	35AA	1
4425-3708-01	42	40AA	1
4425-3709-02	43	38AA	1
4425-3710-01	42	28AA	2
4425-3714-01	43	14AA	2
4425-3715-01	43	07AA	4
4425-3723-01	43	41AA	2
4425-3723-01	44	22AA	1
4425-3726-01	43	45AA	1
4425-3726-01	44	24AA	1
4425-3729-02	43	42AA	2
4425-3730-01	43	43AA	2
4425-3731-02	43	39AA	2
4425-3731-02	44	14AA	1
4425-3733-01	43	15AA	2
4425-3734-02	43	22AA	1
4425-3735-01	43	23AA	1
4425-3740-01	43	17AA	4
4425-3741-01	43	24AA	1
4425-3742-02	43	20AA	1
4425-3743-02	43	27AA	1
4425-3744-02	43	29AA	1
4425-3745-01	42	10AA	1
4425-3747-01	43	19AA	1
4425-3754-01	43	40AA	1
4425-3755-03	43	34AA	1
4425-3758-01	42	08AA	1
4425-3760-02	42	25AA	1
4425-3761-01	42	26AA	1
4425-3762-04	42	23AA	1

PART NO.	FIG.	INDEX	QTY
4425-3763-01	42	06AA	1
4425-3766-13	42	09AA	1
4425-3770-01	43	08AA	4
4425-3772-01	43	32AA	1
4425-3774-01	42	39AA	1
4425-3786-02	42	32AA	2
4425-3799-01	43	46AA	1
4425-3805-01	29	11AA	1
4425-3810-01	27	13AA	3
4425-3812-01	29	21AA	1
4425-3813-01	28	22AA	1
4425-3814-02	29	32AA	1
4425-3815-01	29	49AA	1
4425-3816-01	29	38AA	1
4425-3817-02	28	01AA	1
4425-3821-01	28	07AA	1
4425-3837-01	29	55AA	1
4425-3838-01	29	47AA	1
4425-3843-01	29	44AA	1
4425-3844-02	29	53AA	1
4425-3845-01	29	40AA	2
4425-3848-01	29	54AA	1
4425-3849-03	29	27AA	1
4425-3850-01	29	07AA	1
4425-3869-01	28	09AA	2
4425-3870-01	29	37AA	2
4425-3873-01	29	25AA	1
4425-3882-01	29	48AA	1
4425-3883-01	29	03AA	1
4425-3884-01	28	24AA	1
4425-3886-12	29	04AA	1
4425-3887-01	29	29AA	1
4425-3892-01	29	24AA	2
4425-3893-12	29	13AA	4
4425-3899-01	29	19AA	1
4425-3904-01	28	31AA	1
4425-3912-02	29	41AA	1
4425-3913-02	29	39AA	1
4425-3935-01	34	56AA	1
4425-3958-01	34	17AA	1
4425-3994-01	29	17AA	1
4425-3995-01	29	12AA	8
4425-3996-01	29	31AA	1
4425-3997-02	29	26AA	1
4425-3999-12	29	23AA	1
4425-7341-01	43	04AA	1
4425-7343-01	43	60BA	1
4425-7344-01	43	60AA	1
4444-3741-01	42	15AA	1
4444-3743-01	42	16AA	1
4444-3744-01	42	17AA	1
4479-0105-01	42	27AA	1
4479-0201-01	43	55AA	1
4479-0203-01	43	52AA	1
4479-0206-02	44	05AA	1
4479-0207-01	44	11AA	1
4479-3701-01	44	02AA	2
4479-3702-02	44	01AA	2
4479-3703-02	44	01BA	2
4479-3704-02	44	03AA	2
4479-3705-01	44	04AA	1
4479-3706-01	44	29AA	1
4479-3708-01	44	18AA	1
4479-3709-01	44	16AA	1
4479-3710-02	44	19AA	1
4479-3711-01	44	08AA	1
4479-3713-01	44	25AA	1
4479-3714-01	44	09AA	1
4479-3715-01	44	23AA	1
4479-3716-01	44	26AA	1

PART NO.	FIG.	INDEX	QTY
4479-3717-01	44	20AA	1
4479-3718-01	44	21AA	1
4479-3731-01	39	42AA	1
4479-3731-01	41	53AA	1
4479-3731-01	42	36AA	1
4479-3741-02	43	44AA	1
4479-3743-02	43	51AA	1
4479-3744-01	43	28AA	1
4479-3745-01	43	36AA	1
4479-3746-01	43	49AA	1
4479-3748-02	43	35AA	1
4479-6802-01	42	44AA	1
4479-7302-01	38	25AA	1
4479-7302-01	39	25AA	1
4479-7303-01	42	43AA	1
4479-7330-01	43	10AA	1
4479-7331-02	42	19AA	1
9311-3310-21	32	35AA	1
9311-3310-31	17	31AA	1
9312-1310-71	19	31AA	1
9312-1311-23	09	32AA	4
9312-1311-23	39	37AA	1
9312-1311-23	41	49AA	1
9312-1311-41	12	10AA	1
9313-1310-52	04	17AA	1
9313-1310-61	26	28AA	1
9313-1410-21	26	14AA	1
9313-1410-31	04	07AA	1
9313-1410-31	05	07AA	1
9313-1610-52	36	05AA	1
9314-1310-31	21	34AA	1
9314-1310-31	25	15AA	1
9314-1310-71	27	08AA	1
9314-1311-31	11	47AA	1
9314-1311-41	11	10AA	1
9314-1611-01	28	06AA	1
9314-1611-21	08	07AA	1
9314-1611-31	34	23AA	1
9314-1611-61	23	19AA	1
9314-1611-71	23	32AA	1
9314-2310-11	09	15AA	1
9314-2310-11	28	28AA	1
9314-2310-54	35	05AA	1
9314-2610-21	07	05AA	1
9321-2120-31	35	18AA	1
9321-2210-21	29	43AA	1
9321-2310-22	22	08AA	1
9321-2310-41	15	02AA	1
9321-2310-91	30	14AA	1
9321-2620-41	42	05AA	1
9321-2621-11	29	02AA	1
9321-2621-11	30	44AA	1
9322-1310-71	16	17AA	4
9322-1310-81	23	13AA	1
9322-1710-11	08	12AA	1
9323-1510-11	06	34AA	1
9325-1310-63	37	07AA	1
9325-1410-12	37	07BA	1
9325-1610-61	13	11AA	1
9325-2610-62	36	10AA	1
9325-2610-72	36	10BA	1
9325-3310-31	13	01AA	1
9325-3310-41	13	01BA	1
9325-4520-41	01	27AA	1
9326-1010-51	36	32AA	1
9326-1710-11	01	33AA	1
9326-2320-21	01	17AA	1
9326-2820-11	01	39AA	1
9326-2900-06	18	14AA	1
9331-2310-21	06	29AA	1

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9332-1310-11	36	26AA	3
9332-3610-12	06	42AA	1
9332-5310-21	26	22AA	1
9332-5310-21	26	24AA	1
9332-5310-21	26	24BA	1
9332-5310-31	17	09AA	1
9334-1310-21	10	29AA	1
9334-1310-31	32	04AA	1
9334-2320-31	19	36AA	1
9334-2610-11	03	10AA	1
9334-2610-11	06	33AA	1
9335-1310-11	11	02AA	2
9335-1310-11	11	03AA	1
9335-1310-11	11	04AA	2
9335-1310-21	11	30AA	1
9335-1310-21	11	32AA	2
9335-1310-31	04	52AA	1
9335-1310-31	06	17AA	1
9335-1310-31	09	34AA	4
9335-1310-31	13	09AA	1
9335-1310-31	15	41AA	1
9335-1310-31	16	04AA	20
9335-1310-31	17	34AA	2
9335-1310-31	24	18AA	2
9335-1310-31	25	28AA	1
9335-1310-31	27	15AA	1
9335-1310-31	28	08AA	1
9335-1310-31	29	33AA	1
9335-1310-31	30	10AA	2
9335-1310-31	34	28AA	2
9335-1310-31	37	16AA	1
9335-1310-31	39	52AA	2
9335-1310-31	41	62AA	2
9335-1310-31	42	13AA	4
9335-1310-31	43	05AA	1
9335-1310-41	04	26AA	1
9335-1310-41	11	18AA	2
9335-1310-41	35	25AA	1
9335-1310-51	03	13AA	1
9335-1311-01	43	48AA	2
9335-1311-01	43	50AA	1
9335-1311-01	44	27AA	1
9341-2210-41	36	04AA	1
9343-4210-21	36	02BA	3
9343-4310-21	36	02AA	3
9346-1610-11	36	17AA	2
9346-1610-21	36	15AA	1
9351-1820-41	21	22AA	1
9351-2310-91	10	04AA	1
9351-2311-01	10	04BA	1
9352-2312-02	32	29AA	1
9352-2312-12	32	29BA	1
9352-2312-42	32	29CA	1
9352-2611-31	32	28AA	1
9352-2611-41	32	28BA	1
9352-2611-51	32	28CA	1
9352-2611-61	33	20AA	1
9352-2611-71	33	20BA	1
9352-2611-81	33	20CA	1
9352-6310-11	40	23AA	1
9352-6310-11	41	37AA	1
9352-6310-31	26	37AA	1
9352-6310-61	06	23AA	1
9352-6310-61	06	23BA	1
9352-6820-21	18	19AA	1
9372-1310-31	22	23AA	1
9372-2310-52	32	39AA	1
9372-2410-21	33	41AA	1
9381-4310-81	36	11CA	1
9381-4311-41	36	11DA	1
9381-4610-21	36	11AA	1
9381-4610-31	36	11BA	1
9384-1110-61	45	02BA	17
9384-1120-21	09	37AA	1
9384-1220-61	13	37AA	4
9384-1310-11	45	02AA	13
9384-1310-51	45	03AA	2
9384-1310-81	45	04AA	21
9384-1310-91	45	14BA	21
9384-1311-01	45	01AA	10
9384-1311-11	45	22AA	6
9384-1311-21	45	07BA	16
9384-1320-81	45	13AA	2
9384-1520-31	18	32AA	4
9384-1520-31	25	01AA	4
9384-1520-31	36	14AA	4
9384-1520-31	37	13AA	5
9384-1600-04	45	14AA	1
9384-1621-21	05	33AA	1
9384-1621-21	09	38AA	1
9384-1621-21	13	48AA	5
9384-1621-81	07	03AA	1
9384-1820-31	45	05AA	31
9384-1820-41	13	57AA	2
9384-1820-61	45	03BA	4
9384-1820-91	13	58AA	1
9384-1900-53	45	06AA	3
9384-1900-54	45	07AA	2
9384-1900-55	13	63AA	1
9384-1900-55	37	11AA	4
9384-1900-56	03	19AA	4
9384-1900-56	05	32AA	1
9384-1900-56	13	33AA	6
9384-1900-56	24	14AA	5
9384-1900-56	34	24AA	4
9384-1900-57	01	28AA	3
9384-1900-57	13	12AA	4
9384-1900-57	28	18AA	4
9384-1900-57	37	05AA	7
9384-1900-60	13	59AA	1
9384-1920-71	45	08AA	1
9384-1921-01	45	09BA	13
9384-1921-11	45	09AA	1
9384-1921-21	45	09CA	16
9384-1921-31	45	09DA	4
9384-1921-41	37	19AA	3
9384-2010-21	45	11BA	63
9384-2010-31	45	12AA	29
9384-2010-41	45	12BA	3
9384-2310-41	13	18AA	1
9384-2310-41	36	01AA	1
9384-2310-41	37	03AA	1
9384-2510-21	45	10AA	1
9384-2610-11	45	10BA	1
9384-2800-36	45	11AA	13

48 COMMONLY USED PARTS 共通使用部品 PARTS MANUAL

Almost all parts having part numbers the four leftmost digits of which are 1075 · 1139 · 4425 are parts which are also used in the EP6000/1080/1081/PF-105/205/5D/AD-9.
Since the number of these parts is great, they have been omitted from this list.
部品番号の上 4 桁が 1075、1139、4425 の部品は、ほとんどが EP6000/1080/1081/PF-105/205/5D/AD-9 の共通部品です。
部品点数が多いため、リストより省略してあります。

PART NO. 部品番号	OTHER MODELS IN WHICH THIS PART IS BEING USED 使用機種
0704-5401-01	EP6000/4000/5000/2080 CF900
0722-4913-01	EP6000/4000/5000/2080
0723-5613-01	EP6000/8603/8605
0961-5445-02	EP6000/8603/8605
1021-4711-01	EP6000 CF900
1022-4523-01	EP6000/8603/8605
1022-4552-02	EP6000/8603/8605
1022-7807-01	EP6000
1031-0207-01	EP6000/8603/8605
1031-0208-02	EP6000/8603/8605
1031-3717-01	EP6000/8603/8605
1031-3722-01	EP6000/8603/8605
1031-3732-02	EP6000/8603/8605
1031-3736-01	EP6000/8603/8605
1031-3829-01	EP6000/8603/8605
1031-4403-01	EP6000/2080/2010/1052 CF900
1031-4709-01	EP6000/8603/8605
1031-4812-02	EP6000/8603/8605
1031-7223-02	EP8603/8605
1031-7922-01	EP6000
1032-3524-02	EP6000
1033-3102-01	EP6000/4000/5000 CF900
1033-3806-01	EP6000/8603/8605
1033-3818-01	EP6000/4000/5000/3051/4051
1033-4001-01	EP6000
1033-4402-01	EP6000/4000/5000/2080
1033-4709-01	EP6000/8603/8605
1033-4803-01	EP6000
1033-4811-01	EP6000/8603/8605
1036-0242-01	EP6000
1036-3335-01	EP6000/8603/8605
1036-3873-02	EP6000
1036-4524-02	EP6000/2080/2010/1083
1036-4845-01	EP6000
1038-4512-01	EP6000/4000/5000/4051/3051
1038-4701-01	EP6000/4000/5000/2080 CF900
1043-5102-02	EP6000
1044-6054-02	EP6000/4000/5000/3051/4051
1046-3808-01	EP6000
1046-4815-01	EP6000
1046-4821-02	EP6000
1046-4822-02	EP6000
1046-4823-02	EP6000
1050-4805-01	EP6000/4000/5000/2080
1051-1603-01	EP6000/8603/8605
1051-3801-01	EP6000/8603/8605
1051-5248-01	EP6000/8603/8605
1052-2306-01	EP6000/2010/1083/8603/8605
1052-3287-01	EP6000 CF900
1052-4221-01	EP6000/2080/2010/1083
1052-4301-01	EP6000/4000/5000/3051/4051
1052-4376-01	EP6000
1052-4461-01	EP6000/4000/5000
1052-5224-01	EP6000/4000/5000/2080
1052-5409-01	EP6000/4000/5000/2080
1052-5501-02	EP6000/4000/5000/3051/4051
1053-1324-01	EP6000/4000/5000 CF900
1053-1652-02	EP6000 CF900
1053-3103-01	EP6000/4000/5000/2010/1083
1053-4432-01	EP6000/2080/2010 CF900
1053-5415-01	EP6000
1053-6069-01	EP6000
1054-0235-01	EP6000
1054-3861-01	EP6000
1054-3864-01	EP6000
1054-4812-01	EP6000
1054-5468-01	EP6000
1061-6869-01	EP6000
1065-1082-02	EP6000/4000/5000/3051/4051
1065-1083-01	EP6000/4000/5000/3051/4051
1065-5106-01	EP6000/4000/5000/2010/1083
1065-5872-01	EP6000/4000/5000/3051/4051
1065-6803-01	EP3170/4210
1066-1151-01	EP6000/4000/5000/2010/1083
1067-1523-01	EP6000
1067-2503-01	EP6000 CF900
1067-7901-01	EP6000/4000/5000/3051/4051
1070-3071-01	EP6000
1070-3072-01	EP6000/4000/5000/3051/4051
1070-3076-01	EP6000/4000/5000/3051/4051
1074-0156-01	EP6000
1074-1103-01	EP6000
1074-2566-02	EP6000
1074-3753-01	EP6000
1074-4210-01	EP6000
1074-5701-01	EP6000/8603/8605
1074-5778-01	EP6000/8603/8605
1074-6511-03	EP6000
1074-7903-02	EP6000
1076-1365-01	EP6000
1076-2541-01	EP6000/4000/5000/3051/4051
1076-3109-01	EP6000/2080/2010/1083/1052
1076-3906-01	EP6000 CF900
1076-5902-01	EP6000
1076-5905-01	EP6000
1076-7406-01	EP6000/8603/8605
1077-3101-02	EP6000/8603/8605
1079-5530-01	EP6000/4000/5000/3051/4051
1080-1401-03	EP6000 CF900
1100-1321-03	EP6000/8603/8605
1100-1321-12	EP6000
1100-1321-13	EP4000/5000/2080/3051/4051
1100-1322-04	EP6000/8603/8605
1100-1330-11	EP6000
1100-1331-07	EP6000/8603/8605
1100-1332-05	EP6000/8603/8605
1100-1332-06	EP6000
1100-1332-14	EP6000/4000/5000/2080 CF900
1100-1335-03	EP6000/4000/5000 CF900
1100-1340-05	EP6000/2080/2010/1083
1100-1340-09	EP6000/8603/8605 CF900
1100-1340-10	EP6000/8603/8605
1100-1340-14	EP6000/8603/8605
1100-1341-04	EP6000/8603/8605
1100-1341-05	EP6000/8603/8605 CF900
1100-1341-07	EP6000 CF900
1100-1342-08	EP6000/4000/5000/3051/4051
1100-1362-11	EP6000/2080/2010/1083
1100-1431-01	EP6000/8603/8605
1100-1901-01	EP6000/4000/5000/3051/4051
1100-1935-01	EP6000
1100-1944-02	EP8603/8605
1100-3130-08	EP6000/4000/5000/2080
1100-3135-02	EP6000
1100-3190-01	EP6000/4000/5000/3051/4051
1129-2021-01	EP6000/8603/8605
1129-5002-01	EP8603/8605
1129-5003-01	EP8603/8605
1129-5004-01	EP8603/8605
1129-7303-01	EP6000/4000/5000/2010/1083
1134-0107-01	EP6000/4000/5000/2080
1134-0108-02	EP4000/5000/2080
1134-3030-01	EP6000/4000/5000
1134-5154-02	EP6000/4000/5000/3051/4051
1136-0108-03	EP6000
1136-0122-03	EP6000/4000/5000/3051/4051
1136-1030-01	EP6000/4000/5000/2080
1136-1901-01	EP6000/4000/5000/2010/1083
1136-2131-03	EP4000/5000/2080/2010/1083
1136-2530-02	EP6000/4000/5000/3051/4051
1136-2532-01	EP6000/4000/5000/3051/4051
1136-3149-01	EP6000 CF900
1136-4510-01	EP4000
1136-4511-01	EP4000
1136-6840-01	EP4050/3050/2050
1140-3802-01	EP6000/8603/8605
1145-5801-01	EP8010
1149-0116-02	EP2080/3051/4051
1149-0117-02	EP4000/5000/2080
1149-0118-02	EP4000/5000/2080
1149-3404-01	EP4000/5000/2080/3051/4051
1149-3405-01	EP4000/5000/2080/3051/4051
1149-3406-01	EP4000/5000/2080/3051/4051
1149-3407-01	EP4000/5000/2080/3051/4051
1149-3411-02	EP4000/5000/2080/3051/4051
1149-3479-01	EP2080
1151-0173-01	EP4000/5000/3051/4051
1151-0174-01	EP4000/5000/2080
1151-0175-01	EP4000/5000/2080/2010/1083
1151-1901-01	EP4000/5000/2080/2010/1083

PART NO. 部 品 番 号	OTHER MODELS IN WHICH THIS PART IS BEING USED 使用機種
1151-1902-01	EP4000/5000/2080/2010/1083
1151-1903-01	EP4000/5000/2080/2010/1083
1151-1918-01	EP4000/5000/2080/2010/1083
1151-3151-01	EP4000/5000/2080/2010/1083
1151-3300-01	EP2080/2010/1083
1151-7371-01	EP4000/5000/2080/2010
1151-7372-01	EP4000/5000/2080/2010
1156-0102-02	EP4000/5000/3051/4051
1156-0109-01	EP4000/5000/3051/4051
1156-0119-02	EP5000
1156-1027-01	EP4000/5000/3051/4051
1156-7501-01	EP4000/5000/3051/4051
1200-1132-01	EP6000
1200-1232-01	EP6000
1200-1302-01	EP6000
1200-1331-06	EP6000
1200-1341-03	EP6000
1200-1346-01	EP6000/8603/8605
1200-1346-12	EP6000/4000/5000/2010/1083
1200-1442-03	EP6000/8603/8605
1200-1541-04	EP6000
1200-1542-01	EP6000
1200-1542-02	EP6000/8603/8605
1200-1562-02	EP8603/8605
1200-1566-03	EP6000
1200-1566-04	EP6000/4000/5000/2080
1200-1566-06	EP8603/8605
1200-1566-07	EP6000
1200-1646-03	EP6000
1200-2105-05	EP4000/5000/2010/1083 CF900
1200-2105-07	EP6000 CF900
1200-2121-10	EP6000
1200-2125-01	EP6000/2010/1083/1052
1200-2346-09	EP6000
1200-2366-02	EP6000/8603/8605
1200-3120-03	EP3170/4210
1200-3131-07	EP6000
1200-3134-08	EP6000
1200-3134-15	EP6000/8603/8605
1200-3134-16	EP6000/4000/5000/2080
1200-3202-06	EP6000
1200-3205-02	EP6000
1200-3211-08	EP6000/2080/2010/1083
1200-3221-04	EP6000 CF900
1200-3221-07	EP6000/4000/5000/2080 CF900
1200-3221-12	EP6000
1200-3225-07	EP6000/8603/8605 CF900
1200-3225-11	EP6000
1200-3235-04	EP6000
1200-5116-06	EP6000
1200-5201-01	EP6000
1200-5211-08	EP6000
1200-5212-04	EP6000/4000/5000 CF900
1200-5213-01	EP6000
1200-5213-03	EP6000/8603/8605 CF900
1200-5235-12	EP6000/8603/8605
1200-5241-11	EP6000
1200-5242-16	EP6000
1259-4404-01	EP6000
1273-2014-01	EP6000 CF900
1273-2016-01	EP6000 CF900
1273-2017-01	EP6000 CF900
1273-2539-01	EP6000 CF900
1273-2543-01	EP6000
1273-3002-01	EP6000
1273-3003-01	EP6000 CF900
1273-3035-01	EP6000 CF900
1273-3039-01	EP6000 CF900
1273-3043-01	EP6000
1273-3052-01	EP6000 CF900
1273-3055-01	EP6000 CF900
1273-3058-01	EP6000 CF900
1273-3079-01	EP6000
1273-3080-02	EP6000
1273-3505-01	EP6000/2080 CF900
1273-3516-01	EP6000/4000/5000/3051/4051
1274-2611-01	EP6000/4000/5000/3051/4051
1274-3103-02	EP6000/4000/5000/2080 CF900
1274-3602-02	EP6000
1274-3603-01	EP6000
1274-3604-01	EP6000
1274-3605-01	EP6000/4000/5000 CF900
1274-3606-02	EP6000
1274-3607-01	EP6000
1274-7305-01	CF900
1279-3406-01	EP6000
1300-3122-27	EP6000
1300-3142-04	EP6000 CF900
1300-3212-27	EP6000
1300-3232-08	EP6000
1300-3241-08	EP6000
1300-3312-08	EP6000
1300-3312-15	EP6000 CF900
1300-3322-17	EP6000 CF900
1300-3332-08	EP6000
1300-3342-21	EP6000
1300-4342-03	EP6000
1300-4342-07	EP6000 CF900
1300-4394-26	EP6000/8603/8605
1400-1124-08	EP6000
1400-1126-01	EP6000/8603/8605
1400-1134-02	EP6000/4000/5000 CF900
1400-1154-03	EP6000 CF900
1400-1154-06	EP6000/4000/5000/2080
1400-1155-15	EP6000
1400-1163-08	EP6000 CF900
1400-1167-05	EP6000/2080/2010/1083/1052
1400-1174-02	EP6000
1400-1195-06	EP6000
1400-1269-12	EP8010
1400-2110-01	EP6000/4000/5000/2010/1083
1400-2164-20	EP6000
1400-2241-05	EP6000/8603/8605
1400-2502-11	EP6000
1400-2512-15	EP6000
1400-2521-07	EP6000/8603/8605
1400-2965-03	EP6000
1400-3354-34	EP6000
1400-3356-14	EP6000/8603/8605
1500-2513-18	EP6000/4000/5000/3051/4051
1500-2610-18	EP6000
1500-2640-04	EP6000/4000/5000/2080
1500-2640-07	EP6000
4444-3741-01	EP6000 PF-105/205/5D/AD-9
4444-3743-01	EP6000 PF-105/205/5D/AD-9
4444-3744-01	EP6000 PF-105/205/5D/AD-9
4479-0105-01	PF-105/205/5D/AD-9
4479-0201-01	PF-105/205/5D/AD-9
4479-0203-01	PF-105/205/5D/AD-9
4479-0206-02	PF-105/205/5D/AD-9
9341-2210-41	EP6000/8603/8605
9343-4210-21	EP6000/4000/5000/2010/1083
9343-4310-21	EP6000 CF900
9346-1610-11	EP5000/4000
9351-1820-41	EP6000
9351-2310-91	EP6000
9351-2311-01	EP6000
9352-2312-02	EP6000
9352-2312-12	EP6000
9352-2312-42	EP6000
9352-6310-11	EP6000/4000/5000/1052
9352-6310-31	EP6000/4000/5000/2080
9352-6310-61	EP6000
9352-6820-21	EP6000/8603/8605
9372-1310-31	EP6000
9372-2310-52	EP6000
9372-2410-21	EP6000
9381-4310-81	EP6000/4000/5000/2080/1083
9381-4311-41	EP6000/5000 CF900
9381-4610-21	EP2080/3051/4051
9381-4610-31	EP4000/5000/2080
9384-1110-61	EP6000/4000/5000/2080 CF900
9384-1120-21	EP4050/3050/2050
9384-1310-11	EP6000/4000/5000/2080 CF900
9384-1310-51	EP6000/4000/5000/3051/4051
9384-1310-81	EP4000/5000/2010/1083
9384-1310-91	EP4000/5000/2080 CF900
9384-1311-01	EP4000/5000/2080/2010/1083
9384-1311-11	EP6000
9384-1311-21	EP4000/5000/2010/1083
9384-1320-81	EP6000
9384-1520-31	EP6000/8603/8605
9384-1600-04	EP6000/4000/5000/3051/4051
9384-1621-21	EP6000/4000/5000 CF900
9384-1621-81	EP6000
9384-1820-31	EP6000/8603/8605 CF900
9384-1820-41	EP6000
9384-1820-61	EP6000/4000/5000 CF900
9384-1820-91	EP6000
9384-1900-53	EP6000
9384-1900-53	EP4000/5000/2010/1083

PART NO. 部 品 番 号	OTHER MODELS IN WHICH THIS PART IS BEING USED 使用機種
9384-1900-54	EP6000/4000/5000 CF900
9384-1900-55	EP6000/8603/8605 CF900
9384-1900-56	EP6000/2080/2010/1083 CF900
9384-1900-57	EP6000/4000/5000/3051/4051
9384-1900-60	EP6000
9384-1920-71	EP6000 CF900
9384-1921-01	EP6000/8603/8605 CF900
9384-1921-11	EP6000/4000/5000/3051/4051
9384-1921-21	EP6000/4000/5000/2010/1083
9384-1921-31	EP2080/2010/1083 CF900
9384-1921-41	EP6000
9384-2010-21	EP6000/4000/5000/2080
9384-2010-31	EP6000/4000/5000/2080 CF900
9384-2010-41	EP4000/5000/3051/4051
9384-2310-41	EP6000/4000/5000/2080 CF900
9384-2510-21	EP8010
9384-2610-11	EP4000/5000/2010/1083
9384-2800-36	EP6000/2080 CF900